

MARYLAND

STATE MEDICAL JOURNAL

Medical and Chirurgical Faculty of the State of Maryland

1211 CATHEDRAL STREET, BALTIMORE 1, MARYLAND

Official Publication of the Medical and Chirurgical Faculty of the State of Maryland

VOLUME 2

May, 1953

NUMBER 5

CONTENTS

Editorial

Gynecology in General Practice EMIL NOVAK, M.D. 223

Dr. Harvey B. Stone 227

Scientific Papers

The Surgical Approach in the Treatment of Pulmonary Tuberculosis OTTO C. BRANTIGAN, M.D. 228

Etiological Considerations and the Prevention of Rheumatic Fever COLIN M. MACLEOD, M.D. 236

Diagnosis and Management of Common Gynecological Problems WALTER J. REICH, M.D.,
M. WILLIAM RUBENSTEIN, M.D., AND JEROME B. REICH, M.D. 241

Parenteral Nutrition WILLIAM R. WADDELL, M.D. 244

Component Medical Societies

Anne Arundel County GEORGE O. BASIL, M.D. 249

Baltimore City CONRAD C. ACTON, M.D. 249

Cancer Section ROBERT N. COOLEY, M.D. 249

Caroline County ROBERT WRIGHT, M.D. 250

Carroll County W. H. FOARD, M.D. 251

Washington County Medical Society O. D. SPRECHER, M.D. 252

Library

Medical Librarians 254

Books on Old Age LOUIS KRAUSE, M.D. 254

Health Departments

Monthly Communicable Disease Chart 256

Blue Cross and Blue Shield

Your Decision and Blue Cross R. H. DABNEY 257

A Letter Relating to Blue Cross-Blue Shield MARIUS P. JOHNSON, M.D. 258

Woman's Auxiliary MRS. CHARLES H. WILLIAMS 259

Letters to the Editor 260

Membership Roster 261

THE MARYLAND STATE MEDICAL JOURNAL*Editorial and Business Office, 1211 Cathedral Street, Baltimore 1, Maryland***EDITOR**

GEORGE H. YEAGER

EDITORIAL BOARD

HUGH J. JEWETT	EMIL NOVAK	JOHN A. WAGNER	A. EARL WALKER
J. TYLER BAKER		LESLIE E. DAUGHERTY	

*Business Manager: MR. WALTER N. KIRKMAN***MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND****OFFICERS FOR 1953***President: MAURICE C. PINCOFFS**Secretary: GEORGE H. YEAGER**Vice-Presidents: GEORGE O. EATON
OSBORNE D. CHRISTENSEN
WILLIAM F. WILLIAMS**Treasurer: J. ALBERT CHATARD**Assistant Secretary: EVERETT S. DIGGS***COUNCILORS***Baltimore City*

C. REID EDWARDS, *Chairman*—1953
 E. COWLES ANDRUS, *Vice-Chairman*—1954
 CHARLES R. AUSTRIAN—1955
 MONTE EDWARDS—1954
 WARFIELD M. FIROR—1954
 WHITMER B. FIROR—1954
 HUGH J. JEWETT—1955
 WALTER D. WISE—1955

Eastern Shore

WILLIAM B. LONG—1955
 WILLIAM D. NOBLE—1954

Western Shore

O. H. BINKLEY—1953
 THOMAS A. CHRISTENSEN—1954
 JAMES T. MARSH—1953
 W. O. McLANE—1953
 PALMER F. C. WILLIAMS—1954

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION*Delegate*

WARDE B. ALLAN—1954
 JOHN W. PARSONS—1953

Alternate

LOUIS H. DOUGLASS—1954
 BENJAMIN S. RICH—1953

*Owned and Published Monthly by***THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND**

Secretary's Office, 1211 Cathedral Street, Baltimore, Maryland
 Copyright 1953, The Medical and Chirurgical Faculty of the State of Maryland
 1211 Cathedral Street, Baltimore, Maryland
 Entered as second-class matter at the Post Office at Baltimore, Md.

*Single Copies, 50¢**Subscription \$3.00 per year*

MANUSCRIPTS: Manuscripts should be typewritten, double spaced, on white paper 8½ x 11 inches. The original copy, with one carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodicals with volume, page, and year.

Used manuscripts will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

NEWS: Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest

to physicians. We shall be glad to know the name of the sender in every instance.

ADVERTISEMENTS: All advertising copy of products approved by the Councils of the American Medical Association shall be acceptable for publication, together with advertising copy of products exempted by these same Councils, provided such copy does not present a product in a false and/or misleading light. Such other advertising copy may be accepted, subject to the approval of The Editorial Board. All copy must reach the JOURNAL office by the first day of the month preceding publication.

SUBSCRIPTIONS: Membership in the Medical and Chirurgical Faculty of the State of Maryland includes subscription to the JOURNAL. Additional copies may be secured from the Editor.

Maryland STATE MEDICAL JOURNAL

Medical and Chirurgical Faculty of the State of Maryland

VOLUME 2

May, 1953

NUMBER 5

EDITORIAL

GYNECOLOGY IN GENERAL PRACTICE

EMIL NOVAK, M.D.*

A large proportion, probably a majority, of the patients of every general practitioner is made up of women. A considerable segment of this female practice has to deal with the diagnosis and management of gynecologic disorders of one sort or another. Some of these are actually of minor nature, though the proper interpretation and management of even these simpler problems is scarcely possible without a careful history, a conscientiously thorough examination, and the reasonable degree of gynecologic knowledge which nowadays can be expected from a good general practitioner.

The general practice of medicine is coming into its own again, and no one should welcome its renaissance more warmly than the specialists. The relatively young American Academy of General Practice is doing a good job in encouraging the development of a well-rounded type of general practitioner, and its fine monthly publication, G.P. is a powerful medium in this crusade. It is not surprising that an increasing proportion of our young medical graduates are seeking internships which offer training in this higher type of general practice, especially since the economic and military stress and uncertainty of the present day is likely to discourage these young men from spending the four or five years of postgraduate training necessary for specialist qualification. More and more hospitals are establishing approved general practice internships, and more and more of them are creating staff sections of general practice, and the powerful influence of the A.M.A. has been brought to bear in furthering this movement.

I mention these things because I believe that the better type of general practitioner is well equipped to handle many minor gynecologic problems, not only because he has had the initiative to learn a good deal about them, but also because he knows enough to know his own limitations. He wouldn't think, for example, of treating abnormal bleeding in a middle-aged or old woman without making the pelvic examination which he has qualified himself to make properly, and he certainly wouldn't give her hormones before he makes such an examination, as some of his less progressive and less conscientious colleagues still do.

Speaking of hormones, he certainly wouldn't reach for his hypodermic and begin to give "shots" to every woman over forty just because she complains of nervousness, headaches

* Member of the Editorial Board, Maryland State Medical Journal.

and irritability, though she is menstruating perfectly normally and has none of the vasomotor flushes and sweats which are the symptomatic criteria of the menopause. He will know that such vasomotor symptoms rarely occur while the woman's ovaries are still functioning and supplying her with all the estrogen she needs, and that the vague functional symptoms of so many middle-aged but normally menstruating women have nothing at all to do with the menopause, which may not occur until many years later. He will take the time to convince himself that such a woman has developed these symptoms because of domestic, economic or marital stresses of one sort or another, such as the worries of rearing a large family of children or contending with an unsympathetic or misbehaving husband. He will have made himself a pretty good amateur psychiatrist, and he will have learned that the term psychosomatic medicine is more than a mere cliché or a new fad, and that it refers to the kind of medicine which all doctors with common sense and a good conscience have always practiced.

The right type of general practitioner will also know that the menopause, when it comes, is not a disease but a perfectly normal phase of a woman's life, and he should take the time and trouble to explain to apprehensive women what the menopause is and especially what it isn't, that it never causes insanity, that it does not mean the end of normal sex life, and that a woman is not doomed to becoming gross and fat. Above all he will impress on her that most women need no hormones of any kind and are better off without them, which may surprise her because so many of her friends have been taking "shots" for years.

But our sensible and well-informed doctor will patiently explain that the menopause is merely a transition phase during which the cessation of ovarian function imposes on endocrine readjustment which is usually manifested by vasomotor symptoms such as flushes and sweats, but that such symptoms are ordinarily easily tolerable, that they disappear in a reasonable though unpredictable time and that it is better to get along without hormones if possible. He knows, of course, that in a small proportion of women the symptoms are so severe that they are entitled to the relief which interrupted estrogen therapy can give, but he will impress on the patient why continuous estrogen therapy is both irrational and hazardous.

He wouldn't think, for example, of giving a woman a prescription for stilbestrol or any other estrogen without emphasizing that the substance be taken only when and if the symptoms are really severe, because he knows that continuous dosage means putting into the woman's body something that nature is trying to get rid of, thus putting off the inevitable and necessary pituitary-ovarian readjustment and prolonging the duration of the menopause, and he will surely warn the woman that too long estrogen therapy frequently causes postmenopausal bleeding which worries both the patient and the doctor. For that matter, he is justified in telling her that there is good reason to believe that such excessive estrogen therapy may sometimes actually predispose to the development of endometrial cancer. If I were sitting by admiringly as the doctor thus talked to his patient, I could chip in by telling of many instances of such harmful estrogen therapy, including one in which a patient had been taking a 1 mg. tablet of stilbestrol nightly for twelve years.

If estrogen therapy for menopausal symptoms is necessary, our model young doctor would certainly give this orally and not hypodermically, not only because the oral plan is just as effective, more convenient and agreeable, and cheaper, but because of the danger of a psychologic "shot" addiction which is extremely hard to break. I would feel proud if he quoted me as saying that I have not used "shots" for this purpose for many years, and I am sure that many of my colleagues can say the same. For that matter, I suspect that our fine young colleague, with his high ideals of medical practice, would be sensitive about

using shots because he might be accused of carrying on a profitable racket, keeping his patients trotting back and forth for innumerable shots at so much per.

I have felt justified in elaborating on this particular aspect of office gynecology simply because I believe this to be one of the most glaring and widely prevalent therapeutic abuses in our profession, although endocrine therapy is often also used very unintelligently for many other supposed indications, especially menstrual disorders of one sort or another and sterility. It is not possible, within the limits of a comparatively short editorial, to discuss these in any detail. Suffice it to say that rational endocrine therapy presupposes at least some familiarity with the normal reproductive hormonal mechanism, and its possible aberrations, and that it is really not difficult to acquire at least an elementary but adequate knowledge on these matters either from textbooks on endocrinology or from the chapters on this subject in any good textbook of gynecology.

Any type of gynecologic disease is apt to be encountered in the office of the general practitioner. Leucorrhea is certainly one of the most if not the most common, and the well-equipped doctor will not be satisfied simply to prescribe douches, but will make an effort to get at the cause, whether this be a chronic cervicitis, a trichomonas vaginitis, or what not. As with pain and bleeding, no intelligent evaluation or treatment is possible without pelvic examination. Backache, again, makes many women decide they have trouble with the pelvic organs or kidneys, but it is far more likely to be due to trouble with the back itself than to either of the above factors. How far the general practitioner will himself wish to go in the matter of diagnostic and therapeutic implications must depend on his own training, predilections and conscience. There are of course some who are well qualified to carry out such procedures as cervical cauterization, biopsy and tubal insufflations themselves, while perhaps the majority will prefer to transfer the complete responsibility to a gynecologist. "Dat old debil," conscience, must frequently be a final arbiter in this respect.

I have left for the last what I believe is the general practitioners' greatest responsibility in the gynecologic field, his responsibility in the detection of pelvic cancer. The intensive campaign of popular education carried out in recent years by such organizations as the American Cancer Society has undoubtedly increased the proportion of cancer cases brought to light at an early and relatively favorable stage and it is strongly endorsed by the medical profession. But are the profession's own skirts clean, and aren't there still a good many cases in which a deadly delay in diagnosis is clearly chargeable to the doctor and not the patient? There certainly are, as shown by the statistical analysis of a large number of fully investigated cases by the Philadelphia Committee on Pelvic Malignancy. Undue and sometimes very long delay on the part of the doctor was established in no less than 28 per cent of the cases. A similar committee of the Medical and Chirurgical Faculty is now in the second year of its work, but already it is evident that its findings will be pretty much like those of the Philadelphia group.

The first port of call of most cancer patients is to the general practitioner, and it is obvious that it is he who often determines the fate of the patient. Often enough she may already be in an advanced stage of the disease when she consults her family doctor, but in other cases the disease is in an early or covert stage, but needing only the intelligence, alertness and conscientiousness of her doctor to bring it to the surface. The advanced stages can be diagnosed all too easily by anyone who makes the simplest pelvic examination, but the very early phases often call for such diagnostic procedures as biopsy and vaginal smear studies. Both of these require special training, and I rather think that the great majority of practitioners will prefer to place this serious responsibility on the gynecologist. Even the latter, together with his pathologist confrére, will at times have to do some sweating to

arrive at a correct diagnosis. The late Dr. Joseph C. Bloodgood used to like to say that the easier the diagnosis the worse the prognosis, and in general this is undoubtedly true. On the other hand, the reward to the patient is apt to be great if both she and her physicians have to go to a lot of trouble to establish the diagnosis of early cancer.

This is not the place to detail any of these special diagnostic methods. Suffice it to say that, as so many have emphasized, every doctor's office should be a cancer detection clinic. He should, above all, impress upon all his women patients the fact, as I believe it to be, that the most important measure which the patient herself can take in protecting herself against cancer is to have a competent examination at intervals of about six months. If all women could have such examinations, at present a utopian dream, there is not the slightest doubt that the mortality figures of pelvic cancer would show a spectacular drop.

In conclusion, I have thought it best not to attempt a discussion of the many gynecologic diseases encountered by the general practitioner, for this would be almost like writing a condensed textbook of gynecology. I have thought it best to concentrate upon and emphasize two subjects, viz. (1) A warning against the widespread abuse of endocrine therapy, especially for menopausal symptoms, and (2) A plea for all practitioners to be constantly on the alert for the detection of pelvic cancer.

NATIONAL AUXILIARY CONVENTION

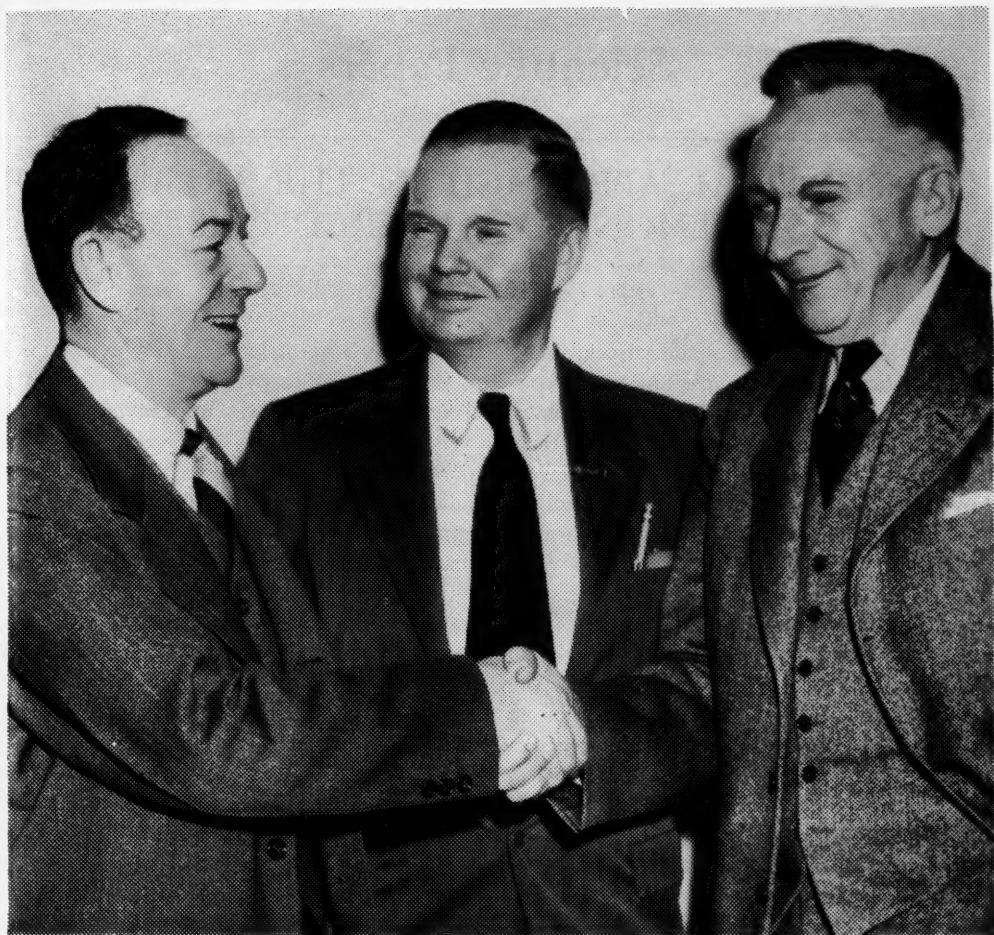
Wives of Faculty members are cordially invited to participate in the National Convention of The Woman's Auxiliary to the American Medical Association at the Hotel Statler, Tuesday, June 2nd through Thursday, June 4th. The Maryland Auxiliary hopes for a big representation this year since so many Faculty members will be in New York for A. M. A. meetings and their wives will be right there for the convention.

ARMY REVIEWING PHYSICAL RECORDS OF 1,000 PRIORITY 3 PHYSICIANS

The AMA Washington Letter, No. 4, January 23, 1953

The Army Surgeon General has asked area surgeons in the U. S. to review records of about 1,000 priority 3 physicians who were deferred for physical reasons prior to lowering of physical standards. A number of doctors in this group are expected to be found fit for duty. Under lowered standards announced last month, each case is decided on its own merits. Generally, the armed services are taking the position that if a doctor is physically able to carry on a private practice then he is fit for military service.

Since the Defense Department announcement on lowered standards, the Army has sent to Selective Service for re-evaluation the names of 739 deferred physicians in priorities 1 and 2. Of this group, 487 have received physical examinations.



DR. DANIELS

DR. TILGHMAN

DR. STONE

DR. HARVEY B. STONE

Congratulations to The Johns Hopkins Hospital Medical and Surgical Association, and best wishes to Dr. Harvey B. Stone for a successful tenure of office as its President.

Dr. Stone has been a leader of the Medical and Chirurgical Faculty of the State of Maryland for many years. He was its President in 1941, and served on the Council for 25 years, being the Chairman from 1942 to 1946. He has been outstanding in his generosity and willingness to render service to the Medical and Chirurgical Faculty as well as the entire medical profession.

In addition to the many honors which have been extended to him, Dr. Stone is a Past President of the American Surgical Association, and the Southern Surgical Association. He is now a member of the Council on Medical Education and Hospitals of the American Medical Association.

The photograph, which is reproduced through the courtesy of the Sunday American, March 1, 1953, shows Dr. Stone, newly elected President of The Johns Hopkins Hospital Medical and Surgical Association, being congratulated by the Past President of the Organization, Dr. Worth B. Daniels, Professor of Medicine at Georgetown University, and Dr. R. Carmichael Tilghman, the Secretary-Treasurer of the Association.

Scientific Papers

THE SURGICAL APPROACH IN THE TREATMENT OF PULMONARY TUBERCULOSIS^{1,2}

OTTO C. BRANTIGAN, M.D.

To simplify a discussion of the surgical treatment of pulmonary tuberculosis one must separate the surgical treatment of uncomplicated pulmonary tuberculosis from the surgical treatment of pulmonary tuberculosis complicated by empyema, bronchopleural fistula, chest wall infection and conditions following other surgical maneuvers.

The treatment of pulmonary tuberculosis can be outlined clearly and briefly. Since it is a bacterial disease its elimination by prophylactic measures should be possible. In this country the greatest effort was put into the elimination of contacts and the program has been highly successful. The use of B. C. G. in this country has been added in the past few years. Where prophylaxis has failed medical treatment becomes necessary. Only a few years ago the treatment of pulmonary tuberculosis consisted of rest, diet and symptomatic relief; it now includes effective antituberculous drugs and the ability to keep down secondary infection with potent antibacterial drugs. The vast majority of people who develop pulmonary tuberculosis recover from the disease by medical measures alone. When medical measures fail to cure the disease or when the progress of medical treatment is delayed surgical treatment is employed. Surgical treatment is an adjunct to medical therapy. The better the medical therapy before and after surgery the more satisfactory will be the end results

of surgery, regardless of the type of surgery used. Surgical therapy can be classified as excision, collapse measures, and cavitary drainage.

As medical therapy improves and becomes more effective there will be a change in the indications for surgery. Surgical procedures once employed to help the patient over an acute phase of the disease are no longer used since the antituberculous drugs produce better results, and are easier and safer for the patient. A perusal of Chart No. 1 will indicate the changes that have been effected in the various types of operations that have been applied to the patients with pulmonary tuberculosis. The geographic location which might influence the type of disease, the source of patients and the doctors making the decisions have remained essentially the same over this period of time. It is obvious that the change in the surgery applied has been noted in the group where the disease was not too extensive. In the era before streptomycin there was not enough disease to warrant thoracoplasty; therefore, pneumothorax was carried out as indicated by pneumonolysis. The frequency of pneumothorax and pneumonolysis was reduced when lucite ball plombage was introduced, and finally as the percentage of pulmonary resections has increased there has been a further reduction in pneumothorax with pneumonolysis and in temporary phrenic paralysis. It is interesting to note that the percentage of thoracoplasties has remained fairly constant during these years. So far as can be determined there has been no change in the indications for thoracoplasty. There has, of course, been a definite increase in the application of pulmonary resection.

¹ Presented before the Joint Staff Meeting of Franklin Square, Maryland General, South Baltimore General and Lutheran Hospitals in Osler Hall, Medical and Chirurgical Faculty Building, Baltimore, on January 27, 1953.

² From the Department of Surgery, School of Medicine, University of Maryland and Baltimore City Hospitals.

Careful consideration and accepted surgical indications at the present time may be changed completely by the discovery of a more potent antituberculous drug. The time may come when surgery will be used only to correct structural deformities created by the disease such as bronchiectasis, bronchial stricture, and other anatomic deformities.

Effective medical therapy is creating a decided change in the pathologic symptomatology found in tuberculosis. Formerly there were many stages of the pathologic process in a single lobe

lesions it is possible that in the future the dangerous initial lesion can be recognized. The type of surgical treatment most applicable for these single isolated lesions appears to be local excision or segmental resection.

Improved medical therapy and its resultant single pathologic lesion create a serious problem in recognizing the healed lesion. In spite of a persistent negative sputum the small open cavity must be considered a potentially active lesion and it should be subjected to surgical treatment. Even before the knowledge and use of chemo-

CHART 1
Operations for Pulmonary Tuberculosis

OPERATION	NO STREPTOMYCIN 1944 & 1945		WITH STREPTOMYCIN					
			1947 & 1948		1949 & 1950		1951 to Aug. 1952	
	No.	%	No.	%	No.	%	No.	%
Thoracoplasty.....	94	30.3	158	26.6	99	28.1	59	28.7
Pulmonary Resection.....	7	2.2	41	6.9	29	8.2	46	22.4
Phrenic Crush.....	57	18.3	136	22.9	75	21.3	18	8.7
Closed Pneumonolysis.....	143	46.1	153	25.8	46	13.1	19	9.2
Lucite Ball Plombage.....	0		72	12.1	80	22.7	51	24.8
Lucite Ball Prosthesis.....	0		19	3.2	8	2.2	3	1.4
Open Pneumonolysis.....	8	2.5	2	0.3	0		0	
Monaldi.....	0		8	1.3	14	3.9	6	2.9
Miscellaneous.....	1	0.3	3	0.5	1	0.28	3	1.4
Total.....	310		592		352		205	

of the lung, such as ulceration, exudation, caseation, and fibrosis. The type of surgical treatment heretofore employed either embraced all the pathologic processes or it considered only the one thought to be most dangerous to the patient. Improved medical therapy is producing more generally a single pathologic process. The common pathologic lesion after medical treatment consists of a small persistent cavity, a fibrotic area, atelectasis of a lobe or part of a lobe, or a localized solid lesion (tuberculoma-like). These lesions represent two distinct aspects of the disease: one, where there was extensive disease and medical therapy eliminated all but the persistent lesion, and the other where medical therapy has perhaps confined the lesion to an isolated persistent one. From a study of these

therapy it was thought by some workers (2, 29, 30) that tuberculosis might heal by epithelialization of the cavity. With effective chemotherapy to sterilize the cavity it would appear that collapse and obliteration of the persistent cavity will be necessary to prevent the ingrowth of bronchial epithelium from lining the cavity. The persistent small solid or fibrotic lesion with a negative sputum may represent healed disease and surgery may be unnecessary. It should be remembered that for years many workers (2, 24, 29, 30) thought the most frequently occurring method of cavitary healing was closure of the bronchial opening and cavity filling with inspissated material that would be gradually absorbed. Medlar (25) reported, however, that the bronchi leading to such lesions never close by

scar tissue and Shields (33) believed that they remain as dangerous foci. On the other hand, Gordon (18) has shown the absence of tubercle bacilli in surgically resected necrotic lesions previously treated by antituberculous drugs.

Since the surgeon is confronted by the patient who has a persistent lesion in spite of good medical therapy or the patient whose progress has not been satisfactory under good medical therapy, he must, with the aid of his medical colleagues, apply the surgical method best suited to the particular patient. He can choose resection, collapse therapy, or cavity drainage.

The type of surgical procedure selected is determined by a number of factors: (a) the age and condition of the patient; (b) the type and extent of the pulmonary lesion; (c) the resulting cardiorespiratory functional impairment occurring with the particular operation; (d) the morbidity, mortality and cure rate of the particular operation. The more simple these factors can be made, the easier will be the decision.

In considering the age and condition of the patient it is fortunate that many patients are young, in good physical condition and without concomitant disease. In the presence of diabetes it is thought that excision of the lesion is most desirable when the extent of the lesion and the condition of the patient will permit. Where there is definite respiratory impairment before surgery it may be necessary to use extrapleural pneumothorax or plombage.

When the extent and type of pulmonary lesion are considered many facts seem evident. So far as the extent is concerned, there is a limit to the amount of lung tissue that can be excised and bilateral excision is fraught with more dangers than unilateral excision. Collapse (especially pneumoperitoneum) therapy (4, 23) can be applied to extensive disease whether unilateral or bilateral. If the extent of the disease is minimal or an isolated single lesion is present excision surely seems the procedure of choice since little lung tissue is destroyed and no secondary procedure need be followed to prevent overdisten-

tion of the remaining lung tissue. When a whole lung is involved and the opposite lung is free of disease excision is the only reasonable procedure. For bilateral lesions and for those that are more than minimal or less than the whole lung in extent excision must be carefully weighed with the other surgical procedures available.

A careful study of the type of lesion has revealed that certain lesions are not suitable for collapse treatment. These are (a) solid type lesions; and (b) lesions resulting from major bronchial disease which cause giant cavities, tension cavities, atelectasis, fibrotic bronchial stricture, bronchiectasis and the so-called destroyed lung. These lesions should be resected if the extent of the disease and the condition of the patient will permit. Other types of lesions may indicate collapse therapy or excision, depending upon the thoughts and desires of the physicians and their patients.

In considering the extent of the pulmonary lesion it should be remembered that collapse measures may be applied when the extent of the lesion precluded excision, even though it is not the type of lesion suitable for collapse. Cavitary drainage may be applied for the same reasons.

When analyzing the impairment of cardiorespiratory function after operation it is important to realize the effect of various surgical procedures. Even though the temporary collapse measures may on occasion become permanent, it should be realized that phrenic paralysis, pneumothorax and pneumoperitoneum may be beneficial in the treatment of certain types of pulmonary tuberculosis and may result in little or no permanent functional impairment. In the so-called temporary phrenic paralysis operation the undesirable permanent paralysis of the phrenic occurred in one-fifth of the 335 operations reported by Seiler (34), in 10 per cent reported by Pinner (31), and in 5 per cent of 546 patients reported by Crow (11). Hardy (19) reported a series of temporary phrenic paralysis combined with pneumoperitoneum which occurred two years or more after operation. He reported

15 per cent of 143 patients who had permanent reduction of function of the diaphragm after the first operation and 24 per cent of 49 patients who showed permanent reduction after the second operation. Care in the method of surgical technic and in the type of disease treated by temporary phrenic paralysis, pneumothorax and pneumoperitoneum will materially reduce the permanent functional impairments experienced in these procedures. The localized pulmonary excision undoubtedly rivals these temporary methods of collapse therapy so far as permanent functional impairment is concerned. Gaensler (14, 15), Dressler (13), and Gaubatz (17) have shown less functional impairment after extrapleural plombage than after any other method of collapse or resection therapy. Gaensler (14, 15) and others have reported that the standard thoracoplasty probably impairs pulmonary function about as much as pneumonectomy or lobectomy and, interestingly enough, there is little difference in pulmonary function between lobectomy and pneumonectomy when measured by vital capacity and maximum breathing capacity. It, however, is obvious that the patient has more pulmonary reserve following thoracoplasty or lobectomy than after pneumonectomy.

In considering the morbidity, mortality and cure rate of the various operations that may be applied to the patient with pulmonary tuberculosis it is difficult to arrive at definite conclusions. There are too many variable factors to arrive accurately at statistical data from the literature. The age and condition of the patient, the type and extent of the lesion, the type and duration of medical therapy, and the time interval followed after surgery all influence the morbidity, mortality and the end result of surgery. It is now important to distinguish, especially in pulmonary resections, the era before and after streptomycin was available. Soon distinction will become necessary concerning the use of other antituberculous drugs or combinations of drugs. Charts No. 2 and 3 represent material gathered from the recent literature. (Certain interpretations had

to be made in order to place the figures in a chart. The author begs forgiveness if the interpretations are not as intended by the original authors.) It was possible to separate pulmonary resections reported before the era of streptomycin and after streptomycin became available. Accordingly, pulmonary resections in the streptomycin era were used. This distinction could not be made in the reports on thoracoplasty. The charts are rather incomplete but they show an overall operative mortality of 6.7 per cent for all types of pulmonary resections against 4.8 per cent for thoracoplasty. The cure rate for pulmonary resections is 75.8 per cent against 56.7 per cent for thoracoplasty. Because of the variable factors including the age, condition of patient, extent of lesion, type of medical therapy and duration followed after surgery, these figures represent only the trends in mortality and the cure rate. It is obvious that the present day operative mortality rate is far less in thoracoplasty and that the operative mortality for segmental resection or local excision of isolated pulmonary lesions is small when compared to lobectomy or pneumonectomy. Of course, if only a single segment or localized area is resected there is little or no disturbance of physiology or pulmonary function so long as pleural and other complications are avoided. After segmental resection no procedure need be supplemented to reduce pleural volume and therefore mortality should be much lower than in lobectomy or pneumonectomy. It is evident that pulmonary resections should not be considered as a group. Careful distinction should be made between pneumonectomy, lobectomy or segmental resection. However, it must be clearly understood that when a patient is being considered for resection surgery, pulmonary resection implies the removal of all the disease regardless of the extent of the resection that may be necessary. Obviously each surgeon or group of physicians treating pulmonary tuberculosis should know their own results of various types of surgery and be guided accordingly. The results of the work of

Surgical Approach to Pulmonary Tuberculosis

CHART 2
Resection in Treatment of Pulmonary Tuberculosis
 (Streptomycin Era Only)

AUTHOR	DATE	FOL-	PNEUMONECTOMY				LOBECTOMY				SEGMENTAL				ALL RESECTIONS							
			No.	Well	Sick	Dead	No.	Well	Sick	Dead	No.	Well	Sick	Dead	No.	Well	Sick	Dead				
			yrs.																			
Gale (16).....	1949	1-3	47	82.9	10.6	2.5	6.3	33	84.8	9.0	3.5	6.0			80	83.7	10.0	2.5	6.2			
Bailey (3).....	1949		69			15.9		25			20.0			6		100	77.0	2.0	16.0	16.0		
Sweet (37).....	1950		36	38.9	8.3	19.4	52.8	27	44.4	22.2	7.4	33.3			63	41.3	14.3	14.3	44.4			
Chamberlain (10).....	1950	2½	104	55.7	25.9			18.0	98	63.2	30.6			75	86.7	1.3	2.4	75	86.7	1.3	2.4	
Day (12).....	1950	1-4	27	77.7	18.5	0.0	3.7	2100.0	0.0			6.1			200	59.4	28.2	6.9	12.4			
Brantigan (6)....	1950	1-3	36	66.6	8.0	2.7	25.0					0.0			29	79.3	17.2	0.0	3.4			
Meyers (26)....	1951	1-5	56	63.0	8.9	3.5	16.0	28							36	66.6	8.0	2.7	25.0			
Sive (35).....	1952	1-4	137	80.0	10.0			10.0	47	85.0	13.0			2.0	24	87.5	8.0	4.0	84.4	22.5	2.4	10.7
Overholt (28)...	1952	1-3													208	81.7	10.5		7.6			
Total.....			512					260						105			877					
Total Well....			300	67.9				151	72.9					86	86.8		626	75.8				
Total Op.														1		0.9	45				6.7	
Dead.....			22		8.1			8			9.2											

CHART 3
Thoracoplasty in the Treatment of Pulmonary Tuberculosis

AUTHOR	DATE	TIME FOLLOWED	NUMBER PATIENTS	WELL		NOT WELL		DEAD					
				No.	%	No.	%	Operative		Total			
								No.	%	No.	%		
Krynski (21).....	1947	1-5	308	159	51.6	73	23.7	41	13.3	76	24.6		
Rubin (32).....	1949	2-6	168	89	63.1	32	22.7	9	5.3	20	14.2		
Kinsella (20).....	1949	5-26	613	306	49.9			34	5.5	203	33.1		
Ottosen (27).....	1951	1-9	130	98	75.2	6	49.9	(7)	5.5	16	19.9		
Lees (22).....	1951	5-15	278	174	62.5					75	26.9		
Adie (1).....	1952	1-17	334	194	58.0	48	14.3			104	31.1		
Brantigan (7).....	1952	1-8	82	66	80.4	6	7.3	1	1.2	6	7.3		
Total.....				1913	1086	56.7	165	8.6	92	4.8	500	26.1	

CHART 4
Operation for Pulmonary Tuberculosis

OPERATION	DATE	YEARS FOLLOWED	NUMBER PATIENTS	WELL	SICK	DEAD	
						Operative	Total
* Thoracoscopy and Closed (5) Intrapleural Pneumonolysis.....	1949	1-7	333	69.0	15.0	0.3	15.1
Lucite Ball Plombage (8).....	1952	1-5	151	74.8	15.9	0.6	9.2
Resection (Streptomycin (6) Era).....	1950	1-3	29	79.3	17.2	0	3.4
Thoracoplasty (7).....	1952	1-10	82	80.4	7.3	1.2	7.3
† Resection (9)	1952		61			6.5	

* White patients only.

† Additional patients now being studied.

the author are shown in Chart No. 4. These figures apparently indicate the same cure rate regardless of the type of operation. The morbidity is practically the same for all procedures but the mortality rate varies.

In the report of 1950 the pulmonary resections done in the streptomycin era were a matter of chance as indicated by the additional 61 patients now being studied. The operative mortality of 6.5 per cent occurred mostly in the patients subjected to pneumonectomy. In patients who have had segmental resection or local excision of their lesion there has not as yet been a single fatality. This low figure will not persist as their numbers become greater. The figures do indicate, however, that when surgery is considered for an individual patient the operation best suited to the patient should be selected. The more extensive the operation the greater will be the mortality. Effort must be concentrated upon improving the cure rate. Undoubtedly the cure rate after surgery will improve as medical therapy becomes more effective.

It is difficult to give indications for the application of various operations in the treatment of pulmonary tuberculosis unless one is fitting the operation to a particular patient. As discussed above, there are many variable factors which influence the choice of operation. The individual may present factors that would justify more than one type of operative procedure.

Cavitory drainage can be either closed or open. In closed drainage it is generally applicable to the patient with a medium to large size cavity, where the extent of the disease or the condition of the patient prohibits resection or even a temporizing thoracoplasty. Closed drainage ordinarily is not a definitive procedure and in order to maintain cavity closure a thoracoplasty is needed. Often the patient who is not suitable for thoracoplasty improves sufficiently to become a thoracoplasty candidate after cavitory closure by closed drainage. The open drainage of a cavity is limited to the patient who has had a thoracoplasty and the cavity has remained open. This treatment is applied only when the patient

is not a candidate for excision because of the extent of the pulmonary disease or when the condition of the patient will not permit a major operation. The cavitory drainage should be followed by a muscle transplant into the opened cavity as soon as infection is brought under control.

Collapse measures and their indication are difficult to discuss since there are so many different types that can be applied. However, collapse is contraindicated in (a) solid type lesions, and (b) lesions resulting from major bronchial disease which cause giant cavities, tension cavities, atelectasis, fibrotic bronchial stricture, bronchiectasis, and the so-called destroyed lung. Of the temporary types, pneumothorax and pneumoperitoneum rarely are placed before the surgeon for consideration and therefore will not be discussed.

Permanent phrenic paralysis probably has no place in the treatment of pulmonary tuberculosis. The temporary phrenic paralysis probably would be applied more frequently if permanent paralysis did not sometimes follow. If the operation were limited to a single hemostat clamping of the phrenic and accessory phrenic nerves permanent paralysis would rarely occur. Temporary phrenic paralysis is a measure probably used too infrequently. The only contraindication to this measure is that its application must not replace a better and more desirable surgical procedure. It is indicated (1) at the time of abandonment of pneumothorax; (2) as an adjunct to medical therapy when no other surgical procedure is contemplated; (3) as an adjunct to pneumoperitoneum, but in this situation permanent (36) paralysis is more likely to result.

The extrapleural plombage operation, whether air or other material is used for maintenance of collapse of the lung, should be applied only to those patients who have lesions suitable for collapse therapy and whose pulmonary lesion is no more than apical in extent. It is a simple operative procedure with a low mortality, low morbidity, and a high cure rate. It is a single operation, it is nondeforming, and it reduces

pulmonary function less than any other major surgical procedure except localized excision of an isolated lung lesion. Extrapleural plombage should not be used in lesions where collapse therapy is contraindicated.

Thoracoplasty with its many modifications is difficult to discuss concisely and briefly. If the discussion is limited to the treatment of pulmonary tuberculosis and not applied to the complications of pulmonary tuberculosis nor to its application after pulmonary resection, then the problem of thoracoplasty is greatly simplified. In a patient whose condition permits major surgery the indications for thoracoplasty are (a) a lesion suitable for collapse therapy, where the extent of the lesion does not reach the base of the lung. (The author prefers lucite ball plombage for the apical lesion.) It is carefully considered before being applied bilaterally. (b) After closed cavitary drainage. (c) As a heroic measure in any type of tuberculosis where resection or other measures are contraindicated. Surprising results are sometimes obtained in this category.

The type of thoracoplasty used should fit the needs of the particular patient and often it can be a one stage operation. Care must be given to prevent scoliosis. This operation rarely develops late complications. The disadvantages of thoracoplasty are deformity, impairment of respiratory function, and often a multiple stage procedure.

Pulmonary resection has become the outstanding method in the treatment of pulmonary tuberculosis and if medical means of treatment become sufficiently good in the future perhaps no other method of treatment will be necessary. The more localized the resection the more suitable is this method of treatment. When the lesion is sufficiently localized there will be little loss of pulmonary function so long as complications are avoided; no secondary procedure will be necessary to reduce the volume of the pleural space and the mortality rate will be low. If this reasoning is carried far enough it is logical to expect

that all patients will be cured of their tuberculosis by medical means and surgery will be needed only to repair anatomic structural damage caused by the disease. At the present time the indications for pulmonary resection in the treatment of pulmonary tuberculosis are (a) persistent small localized pulmonary lesions of any type, especially cavitary; (b) lesions not suitable for collapse therapy, solid-like lesions, and major bronchial lesions resulting in tension cavity, giant cavity, atelectasis, fibrotic bronchial stricture, bronchiectasis and destroyed lung; (c) instances in which collapse therapy has failed to heal the lesion; (d) where the patient is thought to be cured but where structural changes in the tracheobronchial tree necessitate surgery. It should be emphasized that excisional surgery can be made applicable to any type of pulmonary lesion. Consequently, there will be constant conflict between the indications for collapse therapy unless collapse therapy is definitely contraindicated because of the type of lesion. As more care is given to the type of lesion selected for collapse therapy and as this type of therapy is used less frequently the indication for excision after collapse therapy failure will become less important. There will be disagreement with regard to the indications for cavitary drainage and resection unless the physical condition of the patient beyond question rules out major surgery. The most important controversy will arise between the indications for medical therapy and the indications for pulmonary resection.

The conflict between the indications for medical therapy and pulmonary resection is extremely important and cannot be answered satisfactorily at this time. When is a patient cured of pulmonary tuberculosis by medical therapy? Do small localized fibrotic or solid lesions need resection? How long should medical therapy be carried on before resection is undertaken? Should the initially found localized pulmonary lesion be resected without a prolonged medical regimen of therapy? A true and proven basic principle

in medicine dictates that surgery should not be used if there will be satisfactory response to medical treatment. Therefore, the concept of applying excisional therapy in pulmonary tuberculosis before a trial at medical management seems entirely unjustified.

When pulmonary resection for pulmonary tuberculosis is carried out there must always be some procedure followed to reduce the volume of the pleural space if the resection is either a lobectomy or a pneumonectomy. This reduction in volume of the pleural space should equal the volume of the lung resected in order to avoid any overdistention of the remaining lung tissue. For lobectomy there may be used either simultaneous, or subsequent thoracoplasty, plastic prosthesis, or detachment of the diaphragm with reattachment at a higher level. For pneumonectomy the pleural space can be reduced by thoracoplasty, simultaneous or subsequent, or by prosthesis. These procedures do not make resection more simple.

Since there are so many variable factors in the treatment of pulmonary tuberculosis there will always be an honest difference of opinion concerning the proper treatment to be given the particular patient under discussion.

BIBLIOGRAPHY

- ADIE, GEORGE C., CHILDRESS, WILLIAM G., BREZING, HERMAN J., AND TAYLOR, DONALD, Late Results in the Treatment of Pulmonary Tuberculosis by Thoracoplasty, *J. Thoracic Surg.* **23**: 92, 1952.
- AUERBACK, O. AND GREEN, H., The Pathology of Clinically Healed Tuberculous Cavities, *Am. Rev. Tuberc.* **42**: 707, 1940.
- BAILEY, C. P., GLOVER, R. P., AND O'NEILL, T. J. E., Comparison of Results in Two Hundred Consecutive Resections for Pulmonary Tuberculosis, One Hundred without Streptomycin Therapy and One Hundred with Therapy, *J. Thoracic Surg.* **18**: 36, 1949.
- BANYAI, A. L., *Pneumoperitoneum*, C. V. Mosby Co., St. Louis, 1946, pp. 61-62.
- BRANTIGAN, O. C., Thoracoscopy and Closed Intrapleural Pneumonolysis, *Am. Rev. Tuberc.* **59**: 240, 1949.
- BRANTIGAN, O. C. AND RIGDON, H. L., Resections of the Lung in the Treatment of Pulmonary Tuberculosis, *Arch. Surg.* **60**: 520, 1950.
- BRANTIGAN, O. C., Thoracoplasty in the Treatment of Pulmonary Tuberculosis, *Am. Surgeon* **18**: 6, 1952.
- BRANTIGAN, O. C., Lucite Ball Plombage (To be published).
- BRANTIGAN, O. C., Pulmonary Resection in Pulmonary Tuberculosis (To be published).
- CHAMBERLAIN, J. M. AND KLOPSTOCK, R., Further Experiences with Segmental Resection in Tuberculosis, *J. Thoracic Surg.* **20**: 843, 1950.
- CROW, H. E., AND WHEELCHER, F. C., Diaphragmatic Paralysis and Pneumoperitoneum, *Am. Rev. Tuberc.* **52**: 367, 1945.
- DAY, J. C. ET AL., Resection in Treatment of Pulmonary Tuberculosis, *J. Thoracic Surg.* **20**: 854, 1950.
- DRESSLER, S., BRONFIN, G., AND CROW, J., Pulmonary Function Studies before and after Extrapleural Pneumonolysis with Plombage, *J. Thoracic Surg.* **19**: 938, 1950.
- GAENSLER, EDWARD A. AND STRIEDER, JOHN W., Pulmonary Function before and after Extrapleural Pneumothorax, *J. Thoracic Surg.* **20**: 774, 1950.
- GAENSLER, EDWARD A., Analysis of the Ventilatory Defect by Timed Capacity Measurements, *Am. Rev. Tuberc.* **64**: 256, 1951.
- GALE, J. W., DICKIE, H. A., AND CURREI, A. R., Pulmonary Resection in Treatment of Tuberculosis, *Am. Rev. Tuberc.* **59**: 10, 1949.
- GAUBATZ, E., Ueber Funktionspruefungen vor und nach der Operativen Kollaps therapie II. Funktion Spruefungen zur Pneumonolyse, *Beitr. Z. Klin. Tuberk.* **91**: 201, 1938.
- GORDON, By Personal Communication.
- HARDY, J. T., JR., BERGSTROM, W. H., AND BROWNING, R. H., Percentage of Permanent Diaphragmatic Paralysis Following Phrenicotomy, *Am. Rev. Tuberc.* **58**: 646, 1948.
- KINSELLA, T. J., AND OTHERS, Thoracoplasty in Treatment of Pulmonary Tuberculosis, *Am. Rev. Tuberc.* **59**: 113, 1949.
- KRYNSKI, B., Survey of Thoracoplasties at Sea View Hospital over a Five Year Period (1937-1942), *Quart. Bull. Sea View Hosp.* **9**: 144, 1947.
- LEES, W. N. ET AL., Results in 278 Patients Who Had Modern Type of Thoracoplasty for Tuberculosis. Read before the Annual Meeting of The American Association for Thoracic Surgery, 1951.
- LEINER, GEORGE C. AND ABRAMOWITZ, SOL, Spirometric Studies in Pneumoperitoneum, *Am. Rev. Tuberc.* **65**: 465, 1952.
- LOESCH, JOHN, Closure and Healing of Tuberculous Cavities, *Am. Rev. Tuberc.* **58**: 322, 1948.
- MEDLAR, E. M., Pathogenetic Concepts of Tuberculosis, *Am. J. Med.* **9**: 611, 1950.
- MEYERS, D., AND SILVER, A. M., Pneumonectomy in Treatment of Pulmonary Tuberculosis, *Quarterly Bull. Sea View Hospital*, **12**: 10, 1951.
- OTTOSEN, P., POPP, C., BEATTY, A. J., AND BUCKINGHAM, W. W., One Hundred Thirty Consecutive Thoracoplasties, Evaluation of Results in Different Types of

Pulmonary Tuberculosis, *J. Thoracic Surg.* **21**: 202, 1951.

28. OVERHOLT, RICHARD H., WILSON, NORMAN J., AND GEHRIG, LEO J., The Place of Pulmonary Resection in the Treatment of Tuberculosis, *Dis. Chest* **21**: 32, 1952.

29. PAGEL, W. AND SIMMONDS, F. A. H., The Healing of Cavities, *Am. J. M. Sc.*, **197**: 281, 1939.

30. PAGEL, W. AND SIMMONDS, F. A. H., Cavity Healing and Bronchial Occlusion, *Am. J. Med. Sc.* **203**: 177, 1942.

31. PINNER, MAX, Healing of Tuberculosis Cavities, *Am. Rev. Tuberc.* **42**: 731, 1940.

32. RUBIN, M. AND KLOPSTOCK, R., Influence of Type of Disease on Results of Thoracoplasty in Pulmonary Tuberculosis, *Am. Rev. Tuberc.* **60**: 273, 1949.

33. SHIELDS, D. O. AND CHAPMAN, J. S., Elective Resection of Nodular Tuberculosis. Read at 32nd Annual Meeting of The American Association for Thoracic Surgery.

34. SEILER, H. H., AND MURPHY, J. D., Permanence of So-called Temporary Phrenic Nerve Paralysis, *Am. Rev. Tuberc.* **63**: 81-84, 1951.

35. SIVE, EUGENE, BOGEN, EMIL AND DOLLEY, FRANK S., Pulmonary Resection for Tuberculosis, *J. Thoracic Surgery* **23**: 619, 1952.

36. STEINLIN, H., Atemfunktionsprüfung bei Temporärer Phrenikusausschaltung Verbunden mit Pneumoperitoneum, *Schweiz. Ztschr. Tuberk.* **3**: 32, 1946.

37. SWEET, R. H., Lobectomy and Pneumonectomy in Treatment of Pulmonary Tuberculosis, *J. Thoracic Surg.* **19**: 298, 1950.

ETIOLOGICAL CONSIDERATIONS AND THE PREVENTION OF RHEUMATIC FEVER¹

COLIN M. MACLEOD, M.D.²

The large body of evidence that has been collected over many years has made it clear that hemolytic streptococci of Lancefield's Group A are the primary incitants of rheumatic fever. It was to be hoped that with identification of the prime villains, the Group A streptococci, rapid progress would be made in discovering the mechanism whereby they produce the disease and devising methods for preventing or ameliorating the damage. We are still operating on a basis of empiricism, though very distinct progress in prevention has been made.

The sequence of events in the development of rheumatic fever is infection by Group A streptococci, usually of the throat, followed by a latent period of variable length most commonly about two to three weeks, and then the appearance of the manifestations of rheumatic fever. Streptococci cannot be recovered from the rheumatic lesions and furthermore the disease may

remain active even though the inciting streptococci can no longer be isolated from the patient. Persons who have had one or more attacks of rheumatic fever, have a much greater susceptibility than normal to developing the disease following re-infection with streptococci, but can be protected by the administration of antimicrobial drugs as was shown originally by studies carried out simultaneously in Baltimore by Thomas and France (1) and in New York by Coburn and Moore (2).

The most popular explanation of the relationship of streptococci to rheumatic fever is to be found in the "allergic hypothesis." According to this view, as a result of acute infection, sensitization to streptococci or their products occurs to become manifest at the end of the latent period by the development of rheumatic fever. The most often quoted evidence for the allergic hypothesis may be summarized somewhat as follows:

(1) The latent period fits in well with the concept of an allergic etiology, this interval being required for the development of hypersensitivity and its pathological manifestations.

(2) The joint manifestations of rheumatic fever

¹ Presented before the Baltimore City Medical Society in Co-sponsorship with the Heart Association of Maryland on October 17, 1952.

² Department of Microbiology, New York University College of Medicine, New York City.

are closely similar to those in the known allergic condition, serum sickness, and respond well to the same drugs—e.g. salicylates or amidopyrin.

(3) The skin rashes are similar to those found in certain allergic conditions.

(4) Patients with rheumatic fever tend to have higher titers of antibodies for streptococcal products (e.g. antistreptolysin O and antistreptokinase), than patients who have recovered from a streptococcal infection without developing rheumatic fever. It has been argued that the individuals likely to develop rheumatic fever should be precisely those whose immunological response is the greatest, since they would be the most likely to develop the highest degree of hypersensitivity. Along with the generally higher levels of antibodies to streptococcal products the rheumatic fever subjects show marked dermal hypersensitivity to streptococcal products.

(5) The occurrence in man and production in experimental animals through hypersensitivity reactions of lesions similar in some respects to those found in rheumatic fever, though not identical. This has been most carefully explored in recent years through the studies of Rich and Gregory (3).

(6) The persistence of activity of the disease can be rationally explained by the allergic hypothesis since the offending antigen might easily persist in the tissues of the hypersensitive subject even though the initiating streptococci themselves had long since disappeared from the throat.

Other observations could be cited that support the allergic theory, but the foregoing seem to be the most important and those upon which most stress has been placed by the proponents of that theory. To some, however, the allergic theory has long seemed unsatisfactory because its basis is mainly analogy and for the scientific reason that it is desirable, if progress is to be made, that other explanations be sought which might fit the facts and be susceptible to experimental attack.

One of the discrepancies in the allergic theory

is the specificity of Group A streptococci in initiating the disease. True, there have been a number of reports in which it has been claimed that rheumatic fever may follow vaccination against smallpox and other immunizing materials, or may follow dysentery, malaria and even traumatic injury. Unfortunately, in these instances the participation of concurrent or antecedent streptococcal infection has not been rigorously excluded by careful bacteriological and immunological studies. This is a serious inadequacy particularly since we know that the initiating streptococcal infection can be so mild as to escape clinical detection and go unrecognized unless careful laboratory examination is made. For example, Rammelkamp and his coworkers (4) have reported that about 40 per cent of the patients with rheumatic fever observed by them in a military post suffered from antecedent streptococcal infections so mild that the patients did not seek medical attention despite its ready availability. In other words, absence of overt and clinically recognizable streptococcal infection does not mean that it did not occur. Exclusion can be made only on the basis of bacteriological and immunological studies.

For these reasons the validity of the reports on rheumatic fever that has been precipitated by agencies other than Group A streptococci is open to question.

If the unique role of streptococci is accepted, it is pertinent to inquire as to how this fits in with the allergic hypothesis. All persons, practically speaking, develop hypersensitivity, of either the immediate or delayed type to a variety of antigenic or haptenic materials, both bacterial and non-bacterial in origin, but none that we know, with the possible exception of allergy to Group A streptococcal products leads to rheumatic fever. If allergy of the immediate or hay fever type is the underlying state in rheumatic fever, it follows that the antigenic substance and its corresponding antibody which gives rise to the sensitization, behave differently than any other antigen-antibody combination that we know of.

If allergy of the delayed or tuberculin type is operative, once again a unique type of interaction between the streptococcal antigen and the sensitized cells or their products must be invoked. It is by no means impossible that such unique hypersensitivity reactions take place. On the other hand there is no evidence for their existence up to the present.

Another point which casts some doubt on the allergic hypothesis is that of recurrent attacks in the same individual. The latent period during the initial attack has been explained as the time required for the development of hypersensitivity and its manifestations. One might expect, however, that the latent period would be very much shorter between the initiating streptococcal infection and a second attack since hypersensitivity has already been established. This does not seem to be the case, because the latent period in second and subsequent attacks in the same individual does not appear to be significantly different than that of the primary attack of rheumatic fever.

It is recognized that the objections to the allergic theory that have been mentioned do not in themselves discredit it. However, they are sufficient to stimulate thought as to other possible mechanisms. Is there any other hypothesis which might fit the known facts?

In considering alternative hypotheses it has seemed to us that in general the evidence is as compatible with the direct action of a toxin elaborated by Group A streptococci as it is with an allergic mechanism. According to this view the infecting Group A streptococci growing in the pharynx elaborate a specific "toxin" which is absorbed into the general circulation to produce its effects throughout the body. It may be objected that the long latent period is incompatible with the action of a toxin absorbed into the blood. Delayed action of toxins is well known, however. One of the best examples is that of diphtheria where the evidences of toxic neuritis with paralyses usually occur during the second or third week of convalescence from the acute pharyngeal or nasal infection. Moreover, the

cardiac manifestations of diphtheria, especially interstitial myocarditis, are also late manifestations. The latent period between the streptococcal infection and the appearance of rheumatic manifestations is closely paralleled in the secondary manifestations of diphtheria where a specific toxin is known to be functioning.

The majority of pathologists who have studied rheumatic fever have emphasized the Aschoff nodule as characteristic of the disease and a great deal of attention has been paid to defining what does or does not constitute an Aschoff body. If one accepts the specificity of the Aschoff nodule, which appears reasonable, it would seem to be an almost necessary corollary that there should be a specific inciting agent such as a toxin that is responsible for its production.

At first sight, the failure of one attack of rheumatic fever to confer immunity against a second attack might appear to argue strongly against the participation of a streptococcal toxin. If the hypothetical toxin is antigenic, as in the case of diphtheria toxin, recovery from the disease should leave the individual immune. This is not true in the case of rheumatic fever, so that if a toxin is involved, it is possible that it is non-antigenic. Do such toxins exist in bacteria and specifically in Group A streptococci?

Group A streptococci produce 2 hemolytic toxins known respectively as streptolysin O and streptolysin S. Although their activity can be conveniently measured by hemolytic reactions it should not be inferred that these toxins are active only upon red blood cells. There is good evidence, particularly in the case of streptolysin O, that the toxin affects other types of cell. Streptolysin O is an excellent antigen so that most individuals who have had a streptococcal infection develop antibodies to it, so-called anti-streptolysin O. Streptolysin S is an entirely distinct substance and is the toxin which is responsible for the familiar β -hemolysis produced by Group A streptococci growing on blood agar plates. For a number of years streptolysin S was believed to be antigenic, although somewhat

weak in this respect. Recent evidence, however, particularly from the work of Humphrey (5) and of Stollerman and Bernheimer (6), has shown that streptolysin S is not antigenic in rabbits whether elaborated in the tissues by streptococci during infection or upon injection of the isolated material.³ Similarly, following recovery from streptococcal infection no evidence of antibody to streptolysin S appears in patients.

Although streptolysin S, which is a powerful toxin, is not antigenic, the blood of man and animals contains a substance or substances which inhibit it. This we have called streptolysin S inhibitor (7). The inhibitor is associated with the lipoprotein complexes of serum and appears to depend upon the content and disposition of lecithin in such complexes. It should be emphasized that the inhibitor is not an antibody.

Todd, Coburn and Hill (8) reported in 1939 that "antistreptolysin S" titers during the course of rheumatic fever tended to be low when the clinical symptoms were most severe. Since "anti-streptolysin S" appeared to be a specific antibody, the fall in titer during rheumatic activity might be considered as an abnormal antibody response.

Following the discovery that the inhibitor of streptolysin S in serum is not an antibody it was of interest to reinvestigate its behavior during rheumatic fever (6). Serum was obtained from patients during the acute phase of the disease and in convalescence and the content of streptolysin S inhibitor was measured. This was found to be below normal levels in 80 per cent of patients during the acute phase of the disease, returning to normal when convalescence became established. It should not be inferred that this depression of inhibitor levels is unique to rheumatic fever. Some patients with other diseases also show depressed levels and in some the levels may be increased. It is of interest, however, that of the diseases studied to date, acute rheumatic fever is the only one in which a high proportion

of patients have levels consistently below normal. It is of significance that in acute streptococcal pharyngitis uncomplicated by rheumatic fever, the levels remain normal (6).

It is not intended to leave the impression that streptolysin S bears a specific etiological relationship to rheumatic fever or that it is the hypothetical specific toxin responsible for the lesions. There is no evidence that this is so. Streptolysin S, however, does fulfil certain of the requirements and for this reason merits further investigation. It is our hope that inhibitors more easy to handle than lipoprotein complexes may be found so that a more direct test of its possible role in the disease may be made by therapeutic trial. For example, if streptolysin S has an etiological role, an inhibitor of this toxin might be expected to exert a beneficial effect on the symptomatology and progress of rheumatic fever.

The most ideal method for the prevention of rheumatic fever is the prevention of the antecedent streptococcal infection. There are two general methods that have been suggested for accomplishing this aim—through specific immunization and by means of chemoprophylaxis. Prophylaxis by means of sulfonamides was shown to be successful in the prevention of recurrences in rheumatic children through the independent studies of Thomas and France (1) and of Coburn and Moore (2) which were published in 1939. The original observations have been abundantly confirmed by other investigators using sulfonamides and more recently penicillin. This constitutes a major advance in that it is now possible to protect the rheumatic child from further attacks of the disease, and it seems probable through the use of materials such as long-acting penicillin of the type of dibenzyl penicillin that many of the practical difficulties can be minimized (9).

Protection of large population groups against streptococcal infections by means of sulfonamide chemoprophylaxis has also been attempted, at first with some success, but later failing because of the widespread emergence of sulfonamide-resistant strains of streptococci. The administra-

³It is possible that antibodies are produced to streptolysin S, but do not neutralize its toxic action. This occurs in the case of antibodies to certain enzymes which combine with the enzyme but do not inhibit enzymatic activity.

tion of chemoprophylactic agents to the general population can be justified only in the presence of an epidemic state and then only if careful laboratory control is used. The danger of sensitivity reactions and the risk of developing a drug-resistant bacterial population are definite restraints in addition to the tremendous cost of such a program and the difficulty of administration. Circumstances have arisen in the past, however, and are likely for the future, which fully justify chemoprophylaxis of streptococcal infections.

Another approach to the prevention of rheumatic fever is that introduced by Massell, Dow and Jones (10) who first showed that penicillin treatment of existing streptococcal disease in hospitalized rheumatic subjects will prevent recurrences. This approach has been extended by Rammelkamp and his coworkers (4) at the Streptococcal Disease Laboratory at the Warren Air Base in Wyoming. In their study approximately 1000 patients with exudative tonsillitis were treated with depot penicillin administered early in the course of the disease and the incidence of overt rheumatic fever with latent period of less than 35 days compared to that in a control group of the same size to whom penicillin was not given. The data are very impressive since 23 cases of frank rheumatic fever occurred in the untreated control group whereas only one patient in the treated group developed the disease. The same investigators (4) have reported similar results for aureomycin treatment of acute exudative tonsillitis. Penicillin would appear to have an advantage since in adequate dosage it rapidly and permanently rids the pharynx of streptococci, but this is not the case with aureomycin. The use of penicillin or aureomycin in this way has definite limitations, however, in the prevention of rheumatic fever since, as previously noted, 40 per cent of the individuals in the age group studied by Rammelkamp and coworkers (4) who developed rheumatic fever did not have symptoms severe enough at the time of their streptococcal infection to cause them to seek medical

attention. The best that can be hoped for is therefore a reduction in incidence of rheumatic fever of approximately 50 per cent by treating the acute streptococcal infection.

Attempts have been made to prevent streptococcal infection by specific immunization. To date these attempts have been through the use of whole bacterial vaccines and the results have not been particularly promising. It should not be concluded, however, that specific immunization is forever an impossibility, although the difficulties are formidable. In the first place there are many immunological types of Group A streptococci, immunity is type specific and rheumatic fever can follow infection with any of the more than 40 types. A mitigating consideration is that in general only a limited number of types are responsible for most cases of infection in a given area and at a given time, so that immunization would not necessarily involve the use of antigenic materials from all the known types even though that were possible.

A second difficulty is that a large proportion of the normal population is hypersensitive to Group A streptococci and their products which makes the use of whole bacterial vaccines a somewhat heroic procedure. The studies of Lancefield have shown that each of the many types of Group A streptococci contains a specific and different surface protein which she has called M protein. Virulent streptococci contain the M protein and antibodies to the M protein of a particular type protect against infection by streptococci of that type. M protein from a limited number of types has been prepared in partially purified form and has been shown to be moderately antigenic upon injection into experimental animals. It is possible through improved methods for preparing M proteins in pure state and incorporation in media which will enhance their antigenicity, that immunity to streptococcal infections might be attained in man. No other method for obtaining specific immunity would appear to hold promise. It should be emphasized that this is yet a far goal

and a rather discouraging one at present, but nonetheless worth working toward.

An additional approach to prevention might come through discovery of the nature of the component or components of Group A streptococci that are responsible for the disease, whether enzymes, toxins or antigens distinct from known toxins or enzymes. If the offending substance were identified and if it is antigenic, possibilities of immunization can be visualized. As yet, however, such an approach to prevention is entirely in the realm of speculation.

SUMMARY

1. The allergic hypothesis of the etiology of rheumatic fever has been examined and certain of its shortcomings have been pointed out. It is suggested that rheumatic fever may represent the effect of a specific toxin elaborated by Group A streptococci and that the hypothetical toxin may not be antigenic.

2. Various methods for the prevention of rheumatic fever have been reviewed. Although no single method yet envisaged can be completely

successful, a substantial reduction can be expected through the application of knowledge available at present.

BIBLIOGRAPHY

- THOMAS, C. B., AND FRANCE, R., Bull. Johns Hopkins Hospital, 1939, **64**: 67.
- COBURN, A. F., AND MOORE, L. V., J. Clin. Invest., 1939, **18**: 147.
- RICH, A. R., AND GREGORY, J. E., Bull. Johns Hopkins Hospital, 1943, **72**: 65.
RICH, A. R., AND GREGORY, J. E., Bull. Johns Hopkins Hospital, 1943, **73**: 239.
- RICH, A. R., AND GREGORY, J. E., Bull. Johns Hopkins Hospital, 1944, **75**: 115.
- RAMMELKAMP, C. H., HOUSER, H. B., HAHN, E. O., WANNAMAKER, L. W., DENNY, FLOYD W., AND ECKHARDT, G. C., in *Rheumatic Fever*, a Symposium edited by Lewis Thomas, University of Minnesota Press, 1952.
- HUMPHREY, J. H., Brit. J. Exp. Path., 1949, **30**: 345.
- STOLLMAN, G. H., AND BERNHEIMER, A. W., J. Clin. Invest., 1950, **29**: 1147.
- STOLLMAN, G. H., BERNHEIMER, A. W., AND MACLEOD, C. M., J. Clin. Invest., 1950, **29**: 1636.
- TODD, E. W., COBURN, A. F., AND HILL, A. B., Lancet, 1939, **2**: 1213.
- STOLLMAN, G. H., J. A. M. A., 1952, **150**: 1571.
- MASSELL, B. J., DOW, J. W., AND JONES, T. D., J. A. M. A., 1948, **138**: 1030.

DIAGNOSIS AND MANAGEMENT OF COMMON GYNECOLOGICAL PROBLEMS¹

WALTER J. REICH, M.D., M. WM. RUBENSTEIN, M.D. AND JEROME B. REICH, M.D.²

TRICHOMONAS VAGINITIS

Among the most common causes for vaginal discharge often associated with vaginitis are those due to either trichomonas or monilia (yeast). Clinically, trichomonas vaginitis is characterized by a yellowish, bubbly malodorous dis-

charge, often associated with itching. The vaginal wall may be injected, only slightly, or even up to an angry red, and tender and painful. Indeed, trichomonas vaginitis may produce acute, painful distressing symptoms. The causative organism is the parasite, *trichomonas vaginalis*, and is easily identified microscopically, in a hanging drop made from a slight amount of discharge mixed with a drop of warm normal saline or water. The parasite with its characteristic flagellum or tail can be seen swimming about, as a rule.

¹ Courtesy of the Maryland Academy of General Practice. Presented before this Association at its Annual Scientific Assembly, October 9, 1952, Lord Baltimore Hotel, Baltimore.

² From the Department of Gynecology, Cook County Hospital; Grant Hospital; Cook County Graduate School of Medicine; Chicago Medical School; Chicago, Illinois.

In combating this condition, both the prophylactic treatment and reinfection sources must be considered, as well as the active treatment. Bedpan splash, contamination from the stools, poor hygiene in general, as well as reinfection from the male's prepuce, urethra, or prostate, or from her own Skene's ducts, urethra or rectum. The active treatment starts by cleansing the vagina with a liquid made up of one tablespoon of a 20% sodium caprylate solution to one quart of water. The same mixture is used as a douche nightly, for 5 consecutive nights, followed by vaginal insertion of a suppository of milibis (15% arsenic and 42% bismuth). Twice weekly, milibis powder is insufflated in the office, via an open speculum. Treatment is carried out throughout the month, including the menstrual period.

YEAST (MONILIA) VAGINITIS

Yeast vaginitis is caused by the monilia organism, and is characterized by patchy grey-white flecks that cover a slightly injected or sometimes bleeding underlying mucosa. Itching and discharge are usually present.

It has often been said that trichomonas vaginitis resembles the strawberry tongue of scarlet fever, and yeast vaginitis the throat of diphtheria.

Using 10% sodium (or potassium) hydroxide as the hanging drop solution, the characteristic yeast structure with its branches and buds is easily noted.

The naprylate treatment of yeast vaginitis has been very successful. At the initial visit the vagina is cleansed with a solution made up of one tablespoon of 20% naprylate solution to one quart of water. At home the patient douches nightly with a similar solution, followed by intravaginal insertion of naprylate ointment. Twice weekly naprylate powder is insufflated, in the office.

ELECTROCAUTERIZATION OF THE CERVIX

The electrocautery is paramount for the treatment of chronic endocervicitis, with or without

erosion. Clinically this condition is characterized by a white mucoid discharge, annoying as a rule only because of its presence. Before simple cervicitis and erosion are diagnosed, the patient's history is carefully evaluated, and a cytological cervico-vaginal (Papanicolaou) smear, and/or biopsy is taken in order to rule out possible carcinoma of the cervix. The following general principles, only if adhered to, establish the justifiable term "simple cautery":

1. Cauterize the patient about one week postmenstrually. This is the optimum time because the immediate post- or premenstrual vascularity may lead to possible hemorrhage. We have seen this complication several times, and one patient required as many as three blood transfusions.

2. The color of the electrocautery tip is maintained at a dull cherry red as observed in ordinary room light, not under the spot light. Too hot a tip causes deeper burns, more sluff, greater chance for bleeding.

3. To minimize possible vaginal burns, the "cold cautery" is used. The tip is dipped into cold water before being applied to the cervix.

4. Every cauterization consists of a canal cautery, regardless of whether an erosion, eversion or ectropion are also present or not. The canal cautery is done first, cauterizing the entire length of the canal up to the internal os. Next, the red, eroded area is touched up by the electrocautery tip.

Douching and intercourse are forbidden for two weeks in order not to interfere with the slough and cause possible bleeding. During this time there is usually an increased discharge, often foul-smelling; the patient is told about this in advance. Douching with a mild acid solution is allowed after the second week.

5. The cervical canal is kept open by weekly dilatation. This is important, and prevents scarring and stenosis with its possible complication of leucometra, or pyometra, or hematometra, etc. A simple cotton applicator dipped in 10% silver nitrate or negatan solution often suffices.

It takes about six to eight weeks for complete epithelialization. Never recauterize before three months. A cervix that continues to bleed after cauterization may also have had a) too deep and too hot a cautery. b) Cervix was acutely infected. c) Recauterized too soon after recent cautery, and d) possible associated carcinoma of the cervix, previously undetected.

VAGINOSCOPY

The vaginoscope has been brought to light recently because of its practical value in detecting and assisting in the removal of foreign bodies of the vagina. Especially has this been of use in cases of unexplained vaginal discharge in the young female child. When an x-ray does not clearly reveal whether the foreign body is in the bladder or vagina, vaginoscopy may be the answer, and also the retrieving instrument. An otoscope with a properly shaped speculum piece is very adaptable for this work.

CYTOTOLOGICAL SMEAR FOR CARCINOMA OF THE UTERUS

One of the most recent advances in detection of early carcinoma of the uterus—particularly of the cervix—can be attributed to the cytological (Papanicolaou) smear method. A cervix with an erosion or even a cervix that looks normal, cannot be definitely labeled as one that does not seat a squamous cell carcinoma. There are too many instances where an innocent looking cervix or a mild erosion was already the site of an early squamous carcinoma. Whether a smear is taken or a biopsy, matters not. It is important that some form of screening be used. The cytological smear can be easily performed in the office and because of its non-surgical and painless approach, may perhaps be the one of choice for screening. Materials needed are: a) fixative which is usually in a bottle, consisting of equal parts of 95% alcohol (ethyl or isopropyl), and ether. b) Means of obtaining the smear, such as a wooden spatula,

cotton swab, or anything that might be available or practical for the purpose. And c) slides. Preferably, the patient does not douche. We attempt to obtain material from 1.) the squamocolumnar or erosio-normal junction, long known to be the starting site of early squamous carcinoma; and 2.) from the external os; and 3.) from the posterior fornix. The material is spread on two slides, being careful not to smear them too thickly or to overlay the smear, and then immediately put into the fixative. The latter is a very important point, in order to prevent the cells from drying. Frosted-end slides are practical, the name is written on the slide in ordinary lead-pencil. The slides are prevented from rubbing with each other by putting an ordinary paper clip on one end.

The slides are then removed after being in the fixative for a minimum of 30 minutes, allowed to dry, wrapped in kleenex and then either delivered or mailed to any experienced cytologist. It might be mentioned that a vaginal speculum is always employed to expose the cervix unless mechanically impossible. Staining is done by using the trichrome stain of Papanicolaou. Reports are listed as negative, benign, atypical suspicious, malignant, or definitely malignant. The final corroboration must always lie with the histological section. A positive smear must be followed by a biopsy. It may be necessary to do a ring biopsy and get serial sections in order to detect the very early, often preinvasive carcinoma. A positive smear done by an experienced cytologist must not go unheeded. Search by biopsy and serial sections must follow.

The very early, preclinical squamous cell carcinoma, often carcinoma in situ, is the one most important to detect. For it is this carcinoma that lends itself to, perhaps, even a cure. Every doctor's office should be a cancer detection center. When the rather commonly occurring carcinoma of the cervix, so important because of its devastating pathogenic nature, can possibly be de-

tected by a routine screening, it may be reiterated—"Routine smears might be the answer."

A MOST IMPORTANT CONSIDERATION IN ALL CASES OF VAGINAL BLEEDING

As the underlying cause for unexplained vaginal bleeding, one must keep in mind that the disturbance may be in the blood and blood-forming apparatus. Thrombocytopenic purpura has been brought to attention in just such instances. The young adolescent girl with irregular, often menorrhagic periods, is usually looked upon as having a "functional" or "glandular" problem. Yet the underlying cause may be that of a marked thrombocytopenia, with its low or even absent platelets, large spleen, prolonged bleeding time, etc. Indeed, such cases have occurred, gone undiagnosed, and unfortunately, expired. On the other hand, gratifyingly, if the diagnosis is made in time, splenectomy may be life saving. It may be well advised that in any meno-metrorrhagic patient, a routine platelet count and

bleeding time be done, irrespective of the pelvic pathology.

MANAGEMENT OF SPASTIC, TENSE, RIGID HYMEN

In some cases the underlying cause for sexual incompatibility, especially in the newly married couple may be due to small rigid hymen with an associated, tense, spastic, perineal body. The treatment is not only excision of the hymen, but also an incision downward into the perineal body, through the base of the superficial compartment and the base of the triangular ligament. With a finger in the rectum as a guide, a cut is made down to the external sphincter. It is almost a perineal repair in reverse, in that the cut edges are sutured transversely, thus enlarging the vaginal introitus opening. Healing is usually by primary intention and has been very satisfactory in numerous cases. This is followed by weekly dilatations, starting two weeks post-operatively, and continued for about two months. A vaginal speculum is used.

PARENTERAL NUTRITION¹

WILLIAM R. WADDELL, M.D.²

There is unanimous agreement that many patients would benefit greatly from more adequate parenteral caloric supply used as a supplement to the glucose and protein preparations that have become standard therapeutic preparations. There is still great confusion at the clinical level, however, concerning the importance that can be attached to caloric intake in relationship to other dietary essentials and the process of convalescence. The body's economy is so arranged as to withstand short fasts without any perceivable ill effects, and even relatively long periods

of sub-maintenance caloric intake are often not harmful. As a consequence caloric intake is sometimes among the last considerations in any therapeutic program. There are many other patients, nevertheless, whose convalescence could be speeded, or whose life could be spared, if adequate calories could be provided parenterally during periods when the gastrointestinal route cannot be used for alimentation in the usual manner. It is therefore worthwhile to examine briefly the means at our disposal for parenteral feedings and discuss the advantages and limitations of each, particularly as they relate to caloric requirements and our ability to satisfy them.

There are many dietary essentials but none occupies a more fundamental position than cal-

¹ Courtesy of the Maryland Academy of General Practice. Presented before this Association at its Annual Scientific Assembly, October 9, 1952, Lord Baltimore Hotel, Baltimore.

² Department of Nutrition, School of Public Health, Harvard University, Boston, Massachusetts.

ories, representing as they do the thermal units which supply energy for intermediary metabolism. The caloric intake must obviously be in excess of at least basal requirements or the body will sacrifice fat, carbohydrate and protein, to obtain energy. In man, 1600 to 2000 calories per day must be available to maintain equilibrium and to this must be added rather large increments imposed by departure from the normal basal state. One of the aims, therefore, of any nutritional program, parenteral or oral, must be the provision of adequate caloric intake.

Not only is the energy intake in itself important in terms of total calories but significant relationships exist between calorie supply and the physiologic utilization of different foodstuffs for purposes of tissue repair, growth, work, and maintenance of cell life. The concept of a dynamic relationship between energy intake and metabolism of both endogenous and exogenous protein seems certainly established. Practically, this means that on an adequate protein intake caloric supply becomes the determining factor in nitrogen balance, i.e. protein sparing and/or synthesis versus protein breakdown. Similarly on inadequate protein intake the amount of additional energy supplied, whether derived from fat or carbohydrates, bears a direct linear relationship to nitrogen retention. Conversely, the withdrawal of energy in the form of either carbohydrates or fat results in impaired nitrogen balances. [For a detailed review of the relationships which exist between energy intake and protein metabolism see H.N. Munro reference (1).]

Common sense, years of clinical experience, and detailed studies all indicate that ordinarily no harm comes from short complete or partial fasts such as follow acute illness, operation or trauma (2). The fat, protein, and carbohydrate stores of the body are available. The sharpest limitation is in the carbohydrate reserve. Even previously well-nourished individuals have only a limited supply of stored carbohydrate and since a continuous source of this foodstuff is necessary to maintain oxidative requirements of

the body's cells, exogenous supplies must be maintained or the sacrifice of considerable tissue protein and fat will occur to meet energy needs. Fortunately, dextrose solutions are widely available, simple to administer, and it is usually not difficult to provide as much as 200 grams of carbohydrate daily by the intravenous route. For short term dietary restriction nothing more is necessary aside from maintenance of electrolyte and fluid requirements. The body fats and proteins are immediately available for making up the caloric deficit and it is probably meddlesome to go to further extremes to supply a large quantity of exogenous nutrient (2, 3). This presumes that an end to dietary restriction can be accurately predicted.

Five per cent dextrose solutions are isotonic, non-irritating to veins, seldom pyrogenic, miscible with water soluble vitamins, and electrolytes. They provide 50 grams of sugar (200 calories) for each liter infused and 100-200 grams of dextrose can usually be supplied along with a patient's daily fluid requirement. This quantity of sugar will prevent severe ketosis, lessen protein wastage, and seldom be spilled out through the kidneys in appreciable amounts. Only rarely, however, can more than 800 calories be provided with this type of preparation, the quantity being limited by the fluid tolerance of the patient. Ordinarily, nothing more is needed for short-term therapy since the caloric deficit is made up from fat and protein mobilized from tissue reserves.

The carbohydrate intake can be doubled by using 10 per cent dextrose in water solutions. These are hypertonic, irritating to veins, and unless administered slowly result in wastage via the urine. Assuming a fluid intake of 3000 cc. daily about 1200 calories could be supplied from this source. This level of intake is respectable and is often sufficient, provided that some body protein and fat can be sacrificed without detriment.

The irritation to vein walls caused by hypertonic solutions sometimes becomes of considerable importance in a long-term parenteral nutri-

tion program. The advantages of using solutions that lead to thrombosis must be balanced against the possibility that all superficial veins will become sclerosed. Should this occur one may be faced with a major obstacle to the continuation of parenteral feeding. The use of plastic catheters threaded into larger vessels circumvents these difficulties temporarily but even then thrombosis is often initiated by use of irritating solutions. Thrombi in major veins may create additional hazards of embolism. Sepsis about lying intravenous catheters is another problem that sometimes arises from their use and when present creates a potential life endangering situation. Intravenous catheterization may be an important aid in continuing a long-term parenteral nutrition program but should never be used for convenience of either the patient or the physician when peripheral veins are available.

The place of fructose and invert sugar in our armamentarium for parenteral feeding will be established by further careful laboratory and clinical studies.

Protein solutions are also available for parenteral administration. They are prepared by the enzymatic or acid hydrolysis of whole protein and are made up of individual amino acids and/or small aggregates of amino acids. They are usually available in concentrations of 5 or 10 per cent. Their content of utilizable protein varies from 70 to 100 per cent of the total amount present. These solutions can be administered in quantities up to 2 liters per day and concentrations up to 10 per cent. The higher concentrations provoke a certain number of untoward reactions but these can be minimized by slower rate of administration. By this means 50–100 grams of protein can be supplied daily. Without entering into the controversial question of nitrogen and protein metabolism immediately after operation or trauma, it can be stated that in general if sufficient calories to cover energy requirements are concomitantly supplied from other sources, a good portion of parenterally administered protein can be used to rebuild tissue. If not, then

protein supplied must be sacrificed to meet energy demands (4, 5, 6).

Alcohol has been employed for its caloric value. When completely metabolized it has a caloric value of approximately 7 calories per gram which on a volume basis amounts to 5.6 calories per cubic centimeter. The use of alcohol is limited by its action as a central nervous depressant. Alcohol can be administered in concentrations up to 10 per cent and an individual can metabolize up to 10 cc. per hour. It is necessary to exercise rather careful control over the rate of administration in order to avoid toxic symptoms. Alcohol is used in conjunction with glucose or protein solutions and when used in this manner the supplementary calories appear capable of sustaining a positive nitrogen balance (7). However, the limitations imposed by its toxic effects and the slow rate of utilization make alcohol useful mainly as a supplement to other parenteral preparations.

In summary the use of protein and carbohydrate solutions have been rather thoroughly explored both clinically and in the laboratory. Two inherent properties of these types of food impose sharp limitations upon their contribution to the caloric intake by the intravenous route. First, both protein and carbohydrate yield only 4 calories for each gram oxidized. Second, the osmotic effect of these types of molecules makes it impractical to raise their concentrations to higher levels because of sclerosis and thrombosis of veins that they produce.

The most promising approach toward overcoming these difficulties is the development of fat emulsions suitable for intravenous administration. The chief advantage of the use of fat in parenteral nutrition resides in its contribution to the energy intake. Oil-in-water emulsions do not exert any osmotic effect and high concentrations can therefore be used without damage to veins. This, coupled with the high caloric content of fat, 9 calories per gram, makes it possible to introduce considerable quantities of energy into relatively small volumes of fluid. These facts

have been recognized and discussed by almost every worker that has reported investigations in this field (8-11). Inasmuch as several groups of workers have reported favorable results from clinical administration of fat emulsions (9, 12, 13, 14, 15), why then are they not more widely used? The answer is that there still remains a considerable gap between a preparation that can be produced under laboratory conditions and administered on an experimental basis and a preparation that can be manufactured and distributed in quantity.

What are the requisites of a fat emulsion suitable for clinical administration and to what extent have these requirements been fulfilled as a result of work to date?

Stability is a general term used to signify the continued maintenance of the emulsified state under a variety of conditions. Lack of stability is often spoken of as *breaking*, a term which indicates the coalescence of the minute fat particles to form larger globules. If carried to the extreme *creaming* occurs, a phenomenon with which we are all familiar. Stability is without doubt the prime consideration in preparation of clinical fat emulsions. This must be such that the emulsions can be autoclaved to attain sterility, stored for long periods, subjected to mechanical agitation and variations in temperature and finally introduced into the *human* blood stream without breaking (embolization). This ideal emulsion has been attained only in part and this fact accounts for the limited clinical use of emulsions at present. The successful infusion of approximately 500 patients by investigators in several centers attests to the stability of properly prepared emulsions on introduction into the blood stream. Autopsy material accumulated over the past 8 years on 50 cases that received intravenous fat infusions are to be reported by the group at Harvard School of Public Health (16). These studies bear out the fact that large quantities of emulsified fat can be given intravenously without embolization or abnormal accumulation of lipids within the tissues.

Most workers in this field agree that preparations that can be autoclaved must be employed to insure sterility. The breaking impetus of sterilization by autoclaving is considerable but the phospholipid stabilized emulsions most commonly used withstand high temperatures without appreciable change in the physical state of the emulsions. The necessity for autoclaving makes the use of proteins in the emulsifying system impossible and this is one of the principal differences between artificially prepared emulsions and those that leave the intestine naturally, a fact of considerable physiologic significance.

Little can be said concerning such problems as stability during transportation, wide fluctuations of temperature, etc., except that they are being studied and have not yet been solved. They constitute one of the main obstacles preventing widespread clinical use of emulsified fat for caloric purposes at the present time.

Pyrogen and other reactions: Untoward reactions to the infusion of emulsified fat are still common. Temperature elevations, sometimes associated with chills is the most frequent complication. A great deal of work has been done in an attempt to eliminate such reactions and although progress has been made, conclusive definition of the source and mode of operation of the pyrogenic factors has not been attained. It is quite clear, however, that the pyrogenic response is not inherent in the intravenous administration of emulsified fat nor the metabolism of large quantities of fat over a short period of time. Shafiroff has reported temperature elevations of less than 1.9 degrees in 87 per cent of the patients infused and rises of 2 or more degrees in the other 13 per cent (9). This is the lowest incidence of pyrogenic responses reported. Others have had pyrogenic responses in from one-half to one-third of the patients infused (14, 17, 18).

Anorexia, nausea, vomiting, headache and chest or back pain have occurred in a small percentage of each group of patients infused. The incidence of these reactions is small but their elimination along with pyrogen reactions is one

of the major problems today. Johnson, Freeman and Meyer reported that thrombocytopenia developed in three patients that received multiple infusions of a 20 per cent olive oil emulsion which contained 1 per cent lecithin as the emulsifying agent. Other workers have not reported any toxic effects of this nature. Hepatic function has been studied in patients receiving multiple infusions of emulsified fat and no alterations that might be attributed to the fat were noted (14, 19).

Coincident with these studies concerning the preparation of fat emulsions suitable for intravenous administration researches have been carried out upon the utilization of such fat. Several litters of puppies have been reared, having had emulsified fat as their principal source of calories (20). Balance studies on animals (21) and patients (22) have demonstrated its utility and triglycerides labeled with isotopic carbon have shown its ready availability for caloric needs (23, 24). As much as ninety per cent of injected radioactivity can be recovered in the expired carbon dioxide.

It is obvious from this abbreviated progress report on the status of emulsified fat for parenteral nutrition that its use as a therapeutic agent must remain limited for the present but it is also quite apparent that this approach offers a most promising solution to the major problem of parenteral nutrition—the caloric supply.

BIBLIOGRAPHY

- MUNRO, H. N., Carbohydrate and fat as factors in protein utilization and metabolism. *Physiol. Rev.*, **31**: 449-488, 1951.
- MOORE, F. D. AND BALL, M. R., The Metabolic Response to Surgery. Charles C Thomas, Springfield, Ill., 1952.
- MOORE, F. D., Adaptation of supportive treatment to needs of the surgical patient. *J. A. M. A.*, **141**: 646-653, 1949.
- WERNER, S. C., The use of a mixture of pure amino acids in surgical nutrition. I. Certain pharmacologic considerations. *Ann. Surg.*, **126**: 169, 1947. II. Effects upon nitrogen balance. *Ibid.*, **126**: 175, 1947. III. Clinical results. *Ibid.*, **126**: 188, 1947.
- ELMAN, R., Parenteral Alimentation. Paul B. Hoeber, Inc., New York, 1947.
- RHOADS, J. E., Protein nutrition in surgical patients. *Fed. Proc.*, **11**: 659, 1952.
- RICE, C. O., ORR, B. AND ENQUIST, L., Parenteral nutrition in the surgical patient as provided from glucose, amino acids and alcohol. *Ann. Surg.*, **131**: 289, 1950.
- MANN, G. V., GEYER, R. P., WATKIN, D. M. AND STARE, F. J., Fat emulsion for intravenous nutrition in man. *J. Lab. and Clin. Med.*, **34**: 699, 1949.
- SHAFIROFF, B. G. P., MULHOLLAND, J. H., ROTH, E. AND BARON, H. C., Intravenous infusions of a combined fat emulsion into human subjects. *Proc. Soc. Exper. Biol. and Med.*, **70**: 343, 1949.
- MENG, H. C. AND FREEMAN, S., Experimental studies of the intravenous injection of a fat emulsion into dogs. *J. Lab. and Clin. Med.*, **33**: 689, 1948.
- HOLT, L. E., TIDWELL, H. C. AND SCOTT, T. F. M., The intravenous administration of fat. *J. Pediat.*, **6**: 151, 1935.
- GORENS, S. W., GEYER, R. P., MATTHEWS, L. W. AND STARE, F. J., Observations on the use of a fat emulsion for intravenous nutrition in man. *J. Lab. and Clin. Med.*, **34**: 1627, 1949.
- NEPTUNE, E. M., JR., GEYER, R. P., SASLOW, I. M. AND STARE, F. J., The successful intravenous administration of large quantities of fat emulsion to man. *Surg., Gyn. and Obst.*, **92**: 365, 1951.
- JOHNSON, W. A., FREEMAN, S. AND MEYER, K. A., Some effects of intravenous fat emulsions on human subjects. *J. Lab. and Clin. Med.*, **39**: 176, 1952.
- VANITALIE, T. B., WADDELL, W. R., GEYER, R. P. AND STARE, F. J., Clinical use of fat injected intravenously. *Arch. Int. Med.*, **89**: 353, 1952.
- ANDRUS, S., WADDELL, W. R., VANITALIE, T. B., GEYER, R. P. AND STARE, F. J., Unpublished observations.
- WERNER, S. C., Problems in the provision of calories parenterally. *Trans. N. Y. Acad. Sciences*, **14**: 84, 1951.
- STARE, F. J., Unpublished data.
- WADDELL, W. R., VANITALIE, T. B., GEYER, R. P. AND STARE, F. J., Clinical studies on hepatic function following administration of fat emulsions. *Trans. N. Y. Acad. Sciences*, **14**: 78, 1951.
- MANN, G. V., GEYER, R. P., WATKIN, D. M., SMYTHE, R. L., DJU, D., ZAMECHECK, N. AND STARE, F. J., Parenteral nutrition. VII. Metabolic studies on puppies infused with fat emulsions. *J. Lab. and Clin. Med.*, **33**: 1, 1948.
- McKIBBON, J. M., FERRY, R. M. AND STARE, F. J., Parenteral nutrition. II. The utilization of emulsified fat given intravenously. *Jour. Clin. Invest.*, **25**: 679, 1946.
- VANITALIE, T. B., Manuscript in preparation.
- GEVER, R. P., CHIPMAN, J. AND STARE, F. J., Oxidation in vivo of emulsified radioactive trilaurin administered intravenously. *J. Biol. Chem.*, **176**: 1469, 1948.
- LERNER, S. R., CHAIKOFF, I. L., ENTENMAN, C. AND DAUBEN, W. G., Oxidation of parenterally administered C-14-labeled tripalmitin emulsions. *Science*, **109**: 13, 1949.

Component Medical Societies

ANNE ARUNDEL COUNTY MEDICAL SOCIETY

GEORGE C. BASIL, M.D.

Journal Representative

Doctors Armstrong and Johnson were elected as members. Dr. Harry F. Klinefelter is conducting

regular arthritic and rheumatic clinic at the Anne Arundel General Hospital.

The following officers elected for the year of 1953 are: President, Dr. J. Oliver Purvis; Vice-President, Dr. William J. French; Secretary-Treasurer, Dr. J. Howard Beard; Delegate, Dr. Bowie Grant; Board of Censors for 3 years, Dr. Donald Hooker; Alternate, Dr. William Thomas.

Baltimore City Medical Society and its Sections

BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative

By the time the May issue of the Journal is published the Medical and Chirurgical Faculty Ball will be a thing of the past and this first annual occurrence will have gone down in our history as the splendid affair that it was. The Woman's Auxiliary deserves praise for the initiative they have taken in reviving this affair. The difficulty will be living up to past performance.

* * * * *

The course in electrocardiography continues to have enthusiastic turnouts. The last scheduled date was changed because of conflict with the Annual Meeting. Due notice was given and the final lecture was not handicapped thereby. This series of meetings has been most interesting and enlightening. The different speakers and their uniformly complete grasp of subjects has made it unique.

* * * * *

The AMA broadcast on Saturdays from 8:30 to 9:00 p.m., should be followed with a good deal of interest by all. At this writing, it is too early to predict how they have been received.

* * * * *

The Constitution and By-Laws have been read, as required, in open meeting and will be received by every member in mimeographed form. President Wetherbee Fort urges careful study and considera-

tion by every member so that possible difficulties can be ironed out well ahead of time. Things unforeseeable can be anticipated by a broad, general overall approach to Society business. No matter how small a potential error is, you are urged to bring it and discuss it with members of this Committee.

* * * * *

The March meeting, "Seminar on Recent Advances in Radiological Studies of the Vascular System," was a step ahead. It brought together specialists in techniques few of us will ever hope to perform personally. The experts told the Society what is being, and what can be, done offering us new techniques and approaches to our difficult problems. Again the Program Committee is to be congratulated for, and encouraged in the tremendous reform it has made in our programs. Full attendance is witness that the Committee gives what the Society wants. Members of component societies are kept informed of the City Society program and are welcome to attend our meetings. We hope that our programs will be of interest to them and that they will be able to come, to join with us in our seminar and panel discussions on clinical medicine.

* * * * *

CANCER SECTION MEETING

ROBERT N. COOLEY, M.D.*

The Cancer Section of the Baltimore City Medical Society met at Top Cottage on the grounds of The

* Secretary, Cancer Section, Baltimore City Medical Society.

National Institutes of Health at Bethesda, Maryland on the evening of March 11th at 8 p.m.r D. Heller and the staff of the National Cancer Institute were the hosts for the evening. The program was under the charge of Dr. Mider.

The first paper of the evening was presented by Dr. Glenn Algire and was entitled, "Microscopic Studies on Tumor Histophysiology and Transparent Changes in Mice." Using an ingenious technique, Dr. Algire was able, by proper folding of loose skin on the back of the mouse, to obtain a small area which was thin enough to permit microscopic observation. This thinning of the skin is obtained by placing it between layers of plastic thus essentially it is enclosed in a chamber. After proper immobilization the skin and subcutaneous tissues can be clearly seen both under the conventional and phase microscope. Details of capillaries, arterioles, wandering cells, blood platelets and so forth are clearly seen. Also following the introduction of a heterogenous tumor subcutaneously, the activity of the tumor can be observed over a period of days. It has been found that new capillaries extend into the tumor within a very few days and that these capillaries have no vasomotor control. The effects on the tumor after a single exposure of a sizable dose of x-ray have also been observed. Even though the tumor was not destroyed by the irradiation the vascular bed within the tumor was so damaged that further cell proliferation was not possible.

Dr. Algire then showed a very striking movie made from the same sort of transparent chamber preparation in which the activities of the various tissue cells and elements could be observed directly. Observation and filming took place over many hours but by means of lag timing events occurring during this time could be viewed in a few minutes. Melanoma cells inoculated underneath the skin were surprisingly mobile and active. Also a method for measuring pressures in small vascular structures in the skin under direct vision was demonstrated. These techniques have been in use for only a few months and some of the pictures were produced within the last two or three weeks. Dr. Algire is planning to observe and film all phases of the growth of inoculated tumors and it would seem that this technique has opened up a major field of investigation of the details of tumor growth.

The second paper on the program was presented by Dr. Robert Smith and was entitled, "Surgical Approach to Head and Neck Cancer in Man." Dr. Smith briefly outlined the history of the treatment of head and neck cancer in man and told a number of interesting anecdotes. He cited that the emphasis in the treatment of these conditions during the past 30 years fluctuated and outlined the swing from surgery to radiation and back to surgery following the use of antibiotics, better anesthesia, better control of shock and etc. Surgical procedures are now much safer and are accompanied by a reduced mortality. Dr. Smith has operated upon a variety of carcinomas around the head and neck. Some of these have been of the hypopharynx, the larynx, the tonsil, tongue and floor of the mouth. Bilateral neck dissection has been used on a number of occasions. When the floor of the mouth was operated upon a portion of the mandible was resected almost as a routine procedure. Most of these operations have been done within the past year and there is no extended followup. Initial results, however, have been good and Dr. Smith is somewhat enthusiastic about these procedures; even if cure is not obtained palliative results seem to justify their use. Of course a more extended period of observation is necessary to evaluate the accomplishments of such methods of treatment.

Following the scientific portion of the program, there was a short social hour during which refreshments were served.

CAROLINE COUNTY MEDICAL SOCIETY

ROBERT WRIGHT, M.D.

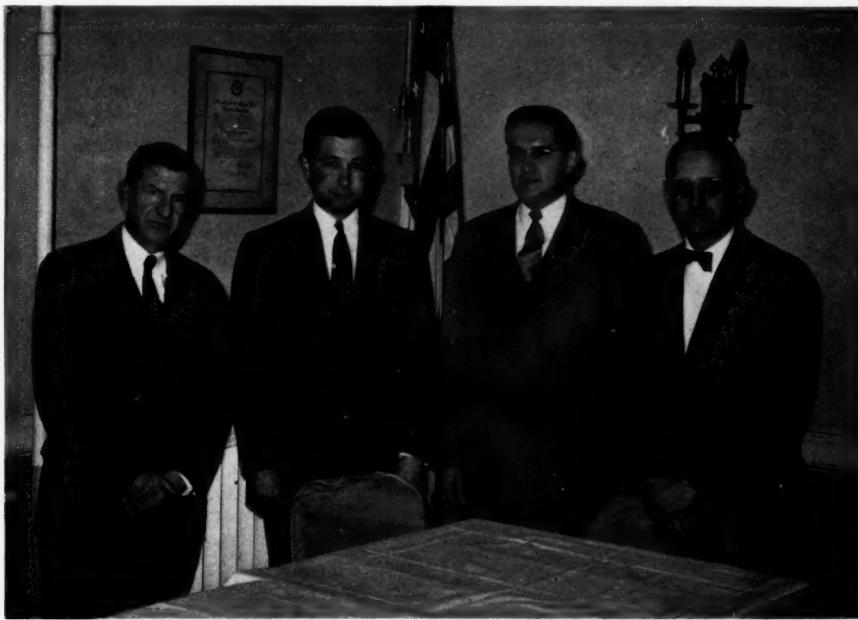
Journal Representative

The following article appeared in the Denton Journal:

Dr. Samuel Asper, of the staff of Johns Hopkins Hospital, addressed the Upper Eastern Shore Medical Society at their banquet, on Thursday evening, January 22, at the Brick Hotel. Dr. Asper spoke on the treatment of thyroid diseases. Also shown with the speaker are: Dr. E. Paul Knotts, Denton, program chairman; Dr. Robert Wright, Greensboro, vice-president, and Dr. Edwin G. Riley, Denton,

Caroline County Health Officer and secretary-treasurer of the society. Thirty-eight members from Caroline, Talbot, Queen Anne's and Kent Counties attended the meeting.

William Culwell, Mt. Airy, Maryland; Secretary-Treasurer, Dr. W. H. Foard, Manchester, Maryland; Delegate, Dr. M. C. Porterfield, Hampstead, Maryland; Alternate Delegate, Dr. R. H. Gardner, Sykes-



DR. E. P. KNOTTS

DR. SAMUEL ASPER

DR. ROBERT WRIGHT DR. EDWIN G. RILEY

CARROLL COUNTY MEDICAL SOCIETY

W. H. FOARD, M.D.

Journal Representative

The Carroll County Medical Society met on Wednesday, January 21st in Westminster, Maryland at Hoffman Inn.

The guest speaker was Dr. James Karns of Baltimore. Dr. Karns gave a very interesting talk entitled "The Differential Diagnosis of Functional and Organic Heart Conditions."

The following were elected to be the new officers for the coming year: President, Dr. Merritt Robertson, New Windsor, Maryland; Vice-President, Dr.

ville, Maryland; Board of Censors, Dr. R. S. McVaugh, Taneytown, Maryland, Dr. Merritt Robertson, New Windsor, Maryland, Dr. James Marsh, Westminster, Maryland.

Dr. Charles R. Foutz of Westminster, Maryland celebrated his eightieth birthday on January 20, 1953. Tribute was paid to Dr. Foutz at an "open house" arranged by the doctor's four children.

Dr. Foutz has ministered to the medical needs of Carroll County from his home in Westminster for the past fifty-five years.

Aside from his medical practice, Dr. Foutz, has been keenly interested in community affairs.

Dr. Foutz is noted for his energy and his zest and enthusiasm for living which have endeared him to old and young in all walks of life.

**WASHINGTON COUNTY MEDICAL
SOCIETY**

O. D. SPRECHER, M.D.

Journal Representative

The following article appeared in The Daily Mail, Wednesday, January 21, 1953:

of Smithsburg was recently hung on the west wall of Dorsey Hall.

"Mr. Snyder, Dr. Zeller's nephew, recalled the doctor's habit of always wearing his hat. As you will note in the portrait, Dr. Zeller never sat for a picture without his high-crowned black hat. It was characteristic of the doctor to always place his hat beside him when in his office or his home dining room.



**"WASHINGTON COUNTY MEDICAL
SOCIETY RECEIVES PORTRAIT
OF DR. HENRY ZELLER"**

"Another portrait of a charter member of the Washington County Medical Society has been donated to the society to grace the walls of its home, Dorsey Hall.

"The daguerreotype of Dr. Henry Zeller of Williamsport, given to the group by Benjamin F. Snyder

"Dr. Zeller was a fellow charter member of the Washington County Medical Society with the distinguished Dr. Frederick Dorsey, for whom the hall was named.

"In 1837, fresh from college, he settled in Williamsport as the village doctor and became known as one of the county's most skillful physicians.

"Many of Williamsport's older residents remember Dr. Zeller and may have been his patients.

"The doctor came from German ancestry, his great-grandfather having emigrated from Switzerland to settle in the wilderness of Washington County. The grandfather of Dr. Zeller was a member of the Maryland Line in the Revolution and was killed in the battle of Cowpens.

"Dr. Zeller's father, Otho, was born on the old Zeller place, near Hagerstown, which was known as the Red-Pump farm. On this farm was situated the Red-Pump Tavern—before the day of the railway known far and wide as the most inviting stopping place on the old road between Philadelphia and the West.

"Born August 17, 1810 in Washington County, six miles from Williamsport, Dr. Zeller was educated at the Hagerstown Academy. Required in those

days were two years of reading medicine under a practicing physician, before entering college. Dr. Zeller studied with Dr. Dorsey and graduated in 1837 with the twelfth class of the Jefferson Medical School of Philadelphia.

"Being a country doctor entailed a working day of about 20 hours, long rides by horseback to his patients, sleepless nights and little pay.

"Besides being a charter member of the county society, Dr. Zeller also served on the County Board of Health organized on March 10, 1881. From District 8, the Downsville and Williamsport section, were other prominent men including: Dr. Lesher, Victor Cushwa, Henry Onderdonk and August Shorb."

* * * * *

TB SYMPOSIUM FOR GP'S IN SARANAC LAKE NEXT SUMMER

The Second Annual Tuberculosis Symposium for General Practitioners will be held in Saranac Lake, New York from July 13 through 17, 1953. It is approved by the American Academy of General Practice for 26 hours of formal credit for its members.

The Symposium is sponsored by the Saranac Lake Medical Society and the Adirondack Counties Chapter of the New York State Academy of General Practice. The registration fee is \$40 for A. A. G. P. members and \$50 for non-members. Registration is limited to 100 doctors.

Many physicians who attended last year's symposium brought their families to Saranac Lake. So that families might have use of the car to enjoy the many recreational facilities of the Adirondack Mountains, free bus transportation was provided for physicians from Saranac Lake to the various meeting places. This practice will be followed again this year.

These symposia are the result of many requests, during the last few years, from the General Practitioners for a postgraduate course on pulmonary tuberculosis designed for them and presented over a period short enough so that they might readily attend. The 1953 Symposium has been planned to meet those needs and to cover all important aspects of pulmonary tuberculosis from the General Practitioner's point of view. Many of the sessions are informal panel discussions with ample opportunities for questions from the audience.

The Symposium will be held in various sanatoria and laboratories in the Saranac Lake area. Morning sessions will be from 8:30 to 12:30 and afternoon sessions from 2:00 to 3:30 (Monday, Wednesday, and Thursday). There will be elective sessions on Tuesday and Friday afternoons. Physicians desiring to make patient rounds will have that opportunity each afternoon at 4:00. On Monday, July 13th there will be a dinner for physicians attending the course, their families and the faculty.

The speakers and panel members at the Tuberculosis Symposium will include physicians, surgeons and scientists from Saranac Lake and surrounding areas.

Complete information concerning this program can be obtained by writing: Richard P. Bellaire, M.D., Tuberculosis Symposium for General Practitioners, P. O. Box 707, Saranac Lake, New York.

Library

"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *ibn Tibbon*

MEDICAL LIBRARIANS

Members attending a regional meeting of Medical Librarians of the Washington area, held in Baltimore on Saturday, April 11th, visited this library in the afternoon. After a cordial greeting from Dr. Louis Krause, Chairman of the Library Committee, tea was served, and members were given an opportunity to see the library and some of its treasures.

The morning meeting, held at the new Psychiatric

Institute of the University of Maryland, included a symposium on "Weeding in Medical Libraries"; a talk on the future of medical education by Dr. H. B. Mulholland of the University of Virginia; and a talk by Lynn D. Poole, Director of Public Relations at Johns Hopkins University, and Producer of the "Science Review" program on television.

BOOKS ON OLD AGE

LOUIS KRAUSE, M.D.*

It is our wish to acquaint the readers of the Journal with some of the literary treasures that we have in our library. Each month, it is our plan to publish a list of the books that we have on various subjects. This month we are presenting the books on *Old Age*. You will note that many of them are very old, as a matter of fact, one or two are extremely rare gems. We hope that this might encourage more to read some of these books.

All of us have a stake in old age if we live long enough; and it is likewise our duty to prepare our patients while they are still in mid-life to grow old gracefully. It is in this spirit that the above list is presented.

It is to be recalled that our own American Doctor-Poet Oliver Wendell Holmes best expressed the psychology of old age in beautiful imagery in his poem, "The Last Leaf," which goes as follows:

And I saw him once before,
As he passed by the door and again
The pavement stones resound
As he totters o'er the ground with his cane.

They say that in his prime,
E're the pruning knife of time cut him down,
Not a better man was found
By the crier on his round through the town.

But now he walks the streets
And he looks at all he meets sad and wan,
And he shakes his feeble head,
That it seems as if he said, "They are gone."

The mossy marbles rest
On the lips that he has prest in their bloom,
And the names he loved to hear
Have been carved for many a year on the tomb.

My grandmama has said
Poor old lady, she is dead long ago
That he had a Roman nose,
And his cheek was like a rose in the snow.

But now his nose is thin
And it rests upon his chin like a staff.
And a crook is in his back
And a melancholy crack in his laugh.

I know it is a sin
For me to sit and grin at him here
But the old three cornered hat,
And the breeches, and all that, are so queer.

* Chairman, Library Committee, Medical and Chirurgical Faculty.

And if I should live to be
 The last leaf upon the tree in the Spring,
 Let them smile as I do now
 At the old forsaken bough where I cling.

Finally it is to be remembered that we have within our own homes in the Bible one of the finest descriptions on old age in what I like to term a classical prose, an imagery: namely; the passage in Ecclesiastes or Qoheleth in the Hebrew, Chapter 12, Verses 1 to 7, beginning

Remember now thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them;

While the sun, or the light, or the moon, or the stars, be not darkened, nor the clouds return after the rain:

In the day when the keepers of the house shall tremble, and the strong men shall bow themselves, and the grinders cease because they are few, and those that look out of the windows be darkened,

And the doors shall be shut in the streets, when the sound of the grinding is low, and he shall rise up at the voice of the bird, and all the daughters of musick shall be brought low;

Also when they shall be afraid of that which is high, and fears shall be in the way, and the almond tree shall flourish, and the grasshopper shall be a burden, and desire shall fail: because man goeth to his long home, and the mourners go about the streets:

Or ever the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain, or the wheel broken at the cistern.

Then shall the dust return to the earth as it was: and the spirit shall return unto God who gave it.

The following are some books on *Old Age* which are available in the Library:

Bennett, Sanford, Old age, its cause and prevention. New York, Dodd, Mead Co., 1927.
 Boas, Ernst Philip, Treatment of the patient past fifty. Chicago, Year Book Publishers, Inc., 1941. Second edition, 1944.
 Canstatt, C. F., Die krankheiten des höheren alters und ihre heilung. Erlangen Enke, 1839.
 Carlisle, Sir Anthony, An essay on the disorders of old age. Philadelphia, E. Earle, 1819.
 Charcot, J. M., Leçons sur les vieillards et les maladies chroniques. Paris, Delahaye, 1867.

Charcot, J. M., Clinical lectures on the diseases of old age. New York, W. Wood and Co., 1881.
 Charcot, J. M., Maladies des vieillards, goutte et rhumatisme. Paris, Delahaye, 1890.
 Child, Charles Manning, Senescence and rejuvenescence. Chicago, University of Chicago Press, 1915.
 Cowdry, Edmund V., Problems of ageing; biological and medical aspects. Baltimore, Williams & Wilkins, 1939. 3rd. ed. 1952.
 Durand-Fardel, C. L. M., Traité clinique et pratique des maladies des vieillards. Paris, G. Bailliére, 1854.
 Hall, G. S., Senescence: the last half of life. New York, Appleton, 1922.
 Humphry, Sir G. M., Old age. Cambridge, Macmillan and Bowes, 1889.
 Lipscomb, F. M., Diseases of old age. London, Bailliére, Tindall and Cox, 1932.
 Lorand, Arnold, Old age deferred. Second edition. Philadelphia, F. A. Davis Co., 1911. Fourth edition, 1914.
 Metchnikoff, E. I. L., The prolongation of life. New York, Putnam's, 1908.
 Nascher, Ignatz Leo, Geriatrics: the diseases of old age and their treatment. Philadelphia, Blakiston's Son and Co., 1914. Second edition, 1916.
 Rauzier, G., Traité des maladies des vieillards. Paris, J. B. Bailliére, 1909.
 Rolleston, Sir H. D., Medical aspects of old age. London, Macmillan, 1932.
 Schwalbe, Julius, Lehrbuch der greisenkrankheiten. Stuttgart Enke, 1909.
 Smith, John, The pourtruct of old age. London, Walter Kettliby, 1676.
 Smith, Kline and French Laboratories, The clinical problems of advancing years. Philadelphia, Smith, Kline and French Laboratories, 1949. Second edition, 1951.
 Stieglitz, Edward Julius, Geriatric medicine. Philadelphia, W. B. Saunders Co., 1943. Second edition, 1949.
 Thewlis, Malford Wilcox, The care of the aged. St. Louis, C. V. Mosby Co., 1942.
 U. S. Federal Security Agency, Fact book on aging. Washington, U. S. Government Printing Office, 1952.
 U. S. Public Health Service, Illness and health services in an aging population. Wash., U. S. Government Printing Office, 1952.
 U. S. Public Health Service, Mental health in later maturity. Washington, U. S. Government Printing Office, 1942.
 Vecki, Victor G., Prevention of premature senility. Boston, Stratford Co., 1931.
 Voronoff, Serge, Life: a study of the means of restoring vital energy and prolonging life. New York, Dutton, 1920.
 Warthin, Aldred Scott, Old age, the major involution. New York, P. B. Hoeber, Inc., 1929.

Health Department

STATE OF MARYLAND DEPARTMENT OF HEALTH
MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, April 3-30, 1953

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCAL	MUMPS	POLIOMYELITIS, PARA LYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORHEA	OTHER DISEASES	DEATHS	
Total, 4 weeks																			
Local areas																			
Baltimore County.....	37	—	35	—	19	—	27	—	—	97	—	—	—	—	3	—	8	—	6
Anne Arundel.....	29	—	4	—	15	1	13	—	—	14	—	—	—	—	1	—	11	—	3
Howard.....	3	—	—	—	5	—	—	—	—	—	—	—	—	—	1	—	2	—	1
Harford.....	15	—	81	3	4	—	10	—	—	2	—	—	—	—	3	—	3	—	3
Carroll.....	11	—	—	5	1	—	6	—	—	—	—	—	2	3	—	1	—	1	2
Frederick.....	6	—	1	—	4	—	4	1*	—	4	—	—	—	4	—	1	—	1	1
Washington.....	3	—	—	—	4	—	3	—	—	2	1	—	—	8	—	4	—	4	2
Allegany.....	8	—	4	—	23	—	—	—	—	1	—	—	—	3	—	1	—	1	6
Garrett.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Montgomery.....	49	—	26	3	33	—	37	—	—	3	—	—	—	6	—	—	—	—	4
Pr. George's.....	25	—	10	1	16	—	18	—	—	15	1	—	—	12	—	2	—	1	—
Calvert.....	—	—	—	—	—	—	—	—	—	2	—	—	—	1	—	1	—	—	—
Charles.....	—	—	—	1	1	—	2	—	—	1	—	—	—	1	—	—	—	—	—
Saint Mary's.....	—	—	—	4	—	1	—	—	—	2	1	—	—	3	—	1	—	—	—
Cecil.....	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	2	p-1	—	1
Kent.....	7	—	44	—	1	—	8	—	—	17	—	—	—	1	—	—	—	—	—
Queen Anne's.....	—	—	—	—	—	1	—	2	—	2	—	—	1	—	—	—	—	—	—
Caroline.....	1	—	1	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Talbot.....	—	—	—	—	—	—	—	3	—	—	—	—	—	4	—	2	—	1	—
Dorchester.....	11	—	—	—	1	—	6	—	—	—	—	—	—	3	—	7	—	2	—
Wicomico.....	5	—	—	—	1	—	—	—	—	—	—	—	—	4	2	5	—	2	—
Worcester.....	—	—	—	1	—	—	—	—	—	—	—	—	—	4	1	1	—	—	—
Somerset.....	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Total Counties.....	210	0	206	18	129	2	140	1	0	163	3	0	2	68	6	54	—	36	
Baltimore City.....	287	1	156	5	118	6	201	0	0	296	1	0	2	97	9	538	—	22	
State																			
April 3-30, 1953.....	497	1	362	23	247	8	341	1	0	459	4	0	4	165	15	592	—	58	
Same period 1952.....	445	1	162	16	1474	15	138	0	0	110	0	1	16	199	15	506	—	72	
5-year median.....	559	7	135	—	830	10	248	0	0	149	2	4	43	240	76	493	—	64	
Cumulative totals																			
State																			
Year 1953 to date.....	2172	7	949	151	528	45	891	3	0	1576	8	2	71	798	55	2518	—	404	
Same period 1952.....	1832	5	541	100	7705	48	544	6	0	577	7	9	66	902	52	2057	—	331	
5-year median.....	2128	37	299	—	2280	43	910	2	0	639	7	18	268	905	359	2188	—	319	

p = paratyphoid fever.

* = poliomyelitis case had 1952 onset.

BLUE CROSS AND BLUE SHIELD

YOUR DECISION AND BLUE CROSS

R. H. DABNEY*

Our most significant development over the past months has not been membership growth, although it has been satisfactory, but the necessity for the third rate increase in our history. The rate increase was effective March 1, 1953. The problems of such an increase—the additional work, the unhappy burden of explanation and justification could be postponed no longer. For the second consecutive year, Blue Cross had to dig into its contingency reserves to meet its obligations. Although people well know that the cost of almost everything has risen steadily over the past few years, many do not realize that our new rates reflect the accumulated increase in our payments to hospitals. If we were in a position to increase rates gradually, we're sure that the increase would have been accepted along with other higher costs.

The financial structure of every business in the country would be imperiled if inflation were allowed to go unchecked. Blue Cross is far more vulnerable to inflation than the traditional insurance company. We must buy hospital services at ever rising prices while commercial insurance companies can pay policyholders in greatly deflated dollars, leaving their members to foot the balance of the bill.

Some of the 89 Blue Cross Plans have attempted to meet the inflationary spiral by limiting the amount of service benefits and substituting a larger cash indemnity. We have avoided this, believing that comprehensive service is our most valuable asset and that the public needs a service policy now more than ever.

The March 1 rate increase, in addition to pro-

* Executive Director, Maryland Hospital Service, Inc.,
Maryland Medical Service, Inc.

viding a more equitable distribution of costs among the various subscriber groups, will enable us to add to our contingency reserves during 1953 and help offset our mounting payments to hospitals. Obviously, the solution is a temporary one; the real solution lies in some other field.

As we have said before here, a major part of that solution lies with the doctors themselves. The major factors affecting the entire economies of our Plan are a matter of individual doctor determination. Just as the resources of Blue Cross-Blue Shield are made up of many thousands of payments from individual members, disbursements are made on the basis of individual decisions which together amount to millions of dollars. Reckon the additional annual cost to Blue Cross if:

1. One of every ten patients stayed an extra day in the hospital.
2. If 10% additional drugs were ordered for hospitalized members.
3. If each participating physician admitted only one additional Blue Cross member during the year.

These are decisions that the doctors must make. A few extra days of hospital care in isolated cases may seem to amount to very little; but when considering the volume of our admissions, the number of patient-days we must pay for each year, etc., such cases would greatly affect our total payments to hospitals.

The individual doctor's decisions are intricately tied in with the well-being and future of Blue Cross. Only through the doctors' careful consideration and sound judgment can we fulfill our purpose and continue to service the public as we have in the past.

A LETTER RELATING TO "BLUE CROSS-BLUE SHIELD"

MARIUS P. JOHNSON, M.D.

222 Medical Arts Bldg.
Baltimore 1, Maryland

February 27, 1953

Dr. Osborn D. Christensen
124 E. Main Street
Salisbury, Maryland

Dear Dr. Christensen:

I was very happy to see your article in the February 1953 issue of the Maryland State Medical Journal entitled, "Blue Cross, Blue Shield; "Indemnity" or "Service." In the formative days of Maryland Blue Shield a questionnaire authorized by the Baltimore City Medical Society showed more than 80% of the returned inquiries favoring Indemnity type plan. The recommendations of the Baltimore City Society were not followed, as you know.

Subsequent expressions by the Blue Shield management have led us to expect repeated requests by the Board of Directors to increase the service level to include incomes up to \$6000.000 per annum per family as the level for complete coverage. The fee schedule remaining at its present level would result in a definite reduction in the actual income to the

physician with a series of attempts by him to augment through channels that would not be absolutely honest. Already the obstetrical group have been granted what amounts to the Indemnity type of insurance.

The pressure of Federal legislation and labor union leaders has motivated the majority of recommendations influencing the character of the present Blue Shield. On the face of this problem it looks harmless to the average physician, but it has an insidious drift which is right now becoming evident in the field of rent control, and like the landlord we will be, in self defense, rendering poorer services commensurate with our capital investment. Such an end result will only reactivate a renewed Federal pressure along a new line of attack. This time the doctor will not have as clean a bill as he at present enjoys.

I cannot endorse too heartily the principals of the Indemnity type of Blue Shield as being the best for both patient and doctor in the long run.

Most sincerely,
Marius P. Johnson

MPJ:ec/c

ANNUAL ASSEMBLY IN OTOLARYNGOLOGY

University of Illinois College of Medicine

The Department of Otolaryngology, University of Illinois College of Medicine, announces its Annual Assembly in Otolaryngology, divided into sections:

- A. Basic Section, September 21 through 26, 1953, devoted to surgical anatomy and cadaver dissection of the head and neck, and histopathology of the ear, nose and throat, under the direction of Dr. M. F. Snitman.
- B. Clinical Section, September 28 through October 3, 1953, consisting of lectures and panel discussions, with group participation of otolaryngological problems and current trends in medical and surgical management.

Registration will be limited. Application for attendance at one or both sections will be optional. For information write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Woman's Auxiliary to the Medical and Chirurgical Faculty

MRS. CHARLES H. WILLIAMS, *Auxiliary Editor*

The Woman's Auxiliary to the Maryland State Medical Society sponsored a "Future Nurses' Day" on May 12th, Florence Nightingale's birthday, at the Faculty Building.

The Principals of High Schools in Maryland sent representatives from the Future Nurses' Clubs (if the school had one) and the senior girls who were definitely interested in nursing as a career to attend the convention. The following was the program:

First Convention

FUTURE NURSES OF MARYLAND

9 a.m. The History of Nursing—Marius P. Johnson, M.D.

9:30 a.m. Collegiate Nursing—Miss Florence Gipe, D.Ed., R.N., B.S., M.S., Dean, School of Nursing, University of Maryland.

10 a.m. Film—"This Way to Nursing," Courtesy American Medical Association.

11 a.m. Scholarship Information—Miss Anna Holmes, R.N., B.S., President, Maryland State Nurses Association, Lecturer Nurses Union Memorial Hospital.

11:30 a.m. The Role of a Nurse in a General Hospital—Mr. Harvey H. Weiss, Superintendent Sinai Hospital, Baltimore.

11:45 a.m. Practical Nursing—Miss Dorothy Volkman, R.N., B.S., M.S., Director Nurses, Director Practical Nurses, Baltimore City Hospital.

12 noon Lunch—provided by members of the Auxiliary who are Nurses.

1 p.m. Parade of Student Nurses in Uniform. Representing all the Nursing Schools in Baltimore.

1:45 p.m. Careers Open to Graduate Nurses—Miss Margaret Courtney, M.A., R.N., Nursing Arts Instructor, Johns Hopkins Hospital League of Nursing Education.

2:30 p.m. The Lighting of the Florence Nightingale

Birthday Cake—A Student Nurse Speaks—Miss Carol Ann Wienefeld—Student Nurse, The Hospital for the Women of Maryland.

2:45 p.m. Film—"Your Doctor," Courtesy American Medical Association.

3 p.m. Adjournment.

The following letter, written March 24, 1953, was received by Mrs. Charles H. Williams from Mrs. Ralph Eusden, President of the Woman's Auxiliary to the American Medical Association:

"Thank you for the program of your Future Nurses Convention.

"In my opinion this is an outstanding event, insofar as I know the first one of its type. I shall appreciate it if you will give an account of this in your annual State report at the time of our National Convention. It would also be very fine if we had mimeographed programs as the one you sent me to give out at that time. May I congratulate you!"

Mrs. Williams also received a letter from Mr. Leo E. Brown, Director of the Department of Public Relations and assistant to the General Manager of the American Medical Association, which states:

"Congratulations on the excellent program you have developed for your first convention of the Future Nurses of Maryland. This is one of the finest public relations projects I have seen in a long time. You not only have cultivated a liaison with other allied groups, but your project is most worthwhile. Needless to say, we appreciate your interest in showing the film, "Your Doctor."

"I assume that you have made this information available to the AMA Woman's Auxiliary, because it seems to me that it would make an excellent report in the BULLETIN.

"Please don't forget to keep me informed of your activities, because such projects as yours are proof positive of the progress being made by medicine all over the country."

Letter to the Editor

April 10, 1953

George H. Yeager, M.D., Editor
Maryland State Medical Journal
1211 Cathedral Street
Baltimore 1, Maryland

Dear Dr. Yeager:

You probably are familiar with the attached two-page message which is scheduled for appearance in the May issue of the Maryland State Medical Journal.

Perhaps, however, you are not so familiar with the fact that for more than twenty-five years Parke, Davis & Company has been stressing, in various ways, "See Your Doctor" in its advertisements in leading national magazines reaching millions of homes each year.

The new series of magazine advertisements, starting this month and next, will have for its theme, "In the hands of the physician, you're in *good* hands," and we believe that members of the general public will, in many instances, be persuaded by it to do something about that long delayed visit to their doctors. Furthermore, we believe that they will be

inclined to more readily accept the physician's advice as to treatment and procedure.

For your further information, and to give you an idea of what the new series will be like we are attaching advance proofs of the two first ads.* The uncaptioned one, showing three poses of a non-cooperative individual, will appear in the April 25 number of the Saturday Evening Post and the May 17 issue of This Week Magazine. "Ever See a Telegram From Your Heart?" is scheduled for Saturday Evening Post, May 16; Time, May 25; Newsweek, June 8; This Week, June 21; Woman's Home Companion, June; and Good Housekeeping, July.

Don't you feel that many of your members will agree that such a series is truly "in the public interest"—and also in the best interests of the practice of medicine today?

Cordially and sincerely,

/s/ WALTER M. CHASE
Walter M. Chase
Assistant Director
Advertising and Public Relations
Parke, Davis & Company

* These "ads" may be seen at the Faculty office.

QUOTED FROM BULLETIN NO. 7-53, ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS, INC.

It is difficult to find any justification for burying health services in a Department where Social Security, with its large number of employees and its enormous disbursements, far overshadows the other functions of the proposed Department.

A Department of Welfare has long been the goal of the socialistic planners, most of whom are still in government protected by civil service even though the Republicans have "taken over." The socialists have looked upon a Department of Welfare as the ideal operational set-up to control a program of nationalized medicine—socialized medicine. These socialistic planners in FSA will be given an assist to their infamous scheme through added prestige and influence to be gained from departmental status.

DIRECTORY

MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND

March 31, 1952–March 31, 1953

LIST OF PRESIDENTS—1799–1953

1799–1801—Upton Scott.
 1801–1815—Philip Thomas.
 1815–1820—Ennals Martin.
 1820–1826—Robert Moore.
 1826–1836—Robert Goldsborough.
 1836–1841—Maxwell McDowell.
 1841–1848—Joel Hopkins.
 1848–1849—Richard Sprigg Steuart.
 1849–1850—Peregrine Wroth.
 1850–1851—Richard Sprigg Steuart.
 1851–1852—William W. Handy.
 1852–1853—Michael S. Baer.
 1853–1854—John L. Yeates.
 1854–1855—John Fonerden.
 1855–1856—Jacob S. Baer.
 1856–1857—Christopher C. Cox.
 1857–1858—Joshua I. Cohen.
 1858–1859—Joel Hopkins.
 1859–1870—Geo. C. M. Roberts.
 1870—John R. W. Dunbar.
 1870–1872—Nathan R. Smith.
 1872–1873—P. C. Williams.
 1873–1874—Charles H. Ohr.
 1874–1875—Henry M. Wilson.
 1875–1876—John F. Monmonier.
 1876–1877—Christopher Johnston.
 1877–1878—Abram B. Arnold.
 1878–1879—Samuel P. Smith.
 1879–1880—Samuel C. Chew.
 1880–1881—H. P. C. Wilson.
 1881–1882—Frank Donaldson.
 1882–1883—William M. Kemp.
 1883–1884—Richard McSherry.
 1884–1885—Thomas S. Latimer.
 1885–1886—John R. Quinan.
 1886–1887—George W. Miltenberger.

1887–1888—I. Edmondson Atkinson.
 1888–1889—John Morris.
 1889–1890—Aaron Friedenwald.
 1890–1891—Thomas A. Ashby.
 1891–1892—William H. Welch.
 1892–1893—L. McLane Tiffany.
 1893–1894—George H. Rohé.
 1894–1895—Robert W. Johnson.
 1895—J. Edwin Michael.
 1895–1896—Charles G. Hill.
 1896–1897—William Osler.
 1897–1898—Charles M. Ellis.
 1898–1899—Samuel C. Chew.
 1899–1900—Clotworthy Birnie.
 1900–1901—Samuel Theobald.
 1901–1902—J. McPherson Scott.
 1902–1903—William T. Howard.
 1903–1904—Eugene F. Cordell.
 1904–1905—Edward N. Brush.
 1905–1906—Samuel T. Earle, Jr.
 1906–1907—Hiram Woods.
 1907–1908—Charles O'Donovan.
 1908–1909—Brice W. Goldsborough.
 1909–1910—G. Milton Linthicum.
 1910–1911—Franklin B. Smith.
 1912—Hugh H. Young.
 1913—Archibald C. Harrison.
 1914—Randolph Winslow.
 1915—J. W. Humrichouse.
 1916—J. Whitridge Williams.
 1917—Guy Steele.
 1918—William S. Halsted.
 1919—John Ruhräh.
 1920—James E. Deets.
 1921—William S. Gardner.
 1922—Arthur H. Hawkins.

1923—Herbert Harlan (Jan.–Aug.).
 Harry Friedenwald (Aug.–Dec.).
 1924—Philip Briscoe.
 1925—Lewellys F. Barker.
 1926—Thomas B. Johnson, Deceased
 December 25, 1925.
 1926—Josiah S. Bowen.
 1927—Thomas S. Cullen.
 1928—Peregrine Wroth, Jr.
 1929—Alexius McGlannan.
 1930—Henry M. Fitzhugh.
 1931—J. M. H. Rowland.
 1932—Eldridge E. Wolff.
 1933—J. Albert Chatard.
 1934—George O. Sharrett.
 1935—J. M. T. Finney, Sr.
 1936—Frederick D. Chapplear.
 1937—Arthur M. Shipley.
 1938—Frank B. Hines.
 1939—Dean Lewis: Acting President,
 Victor F. Cullen.
 1940—Edward P. Thomas.
 1941—Harvey B. Stone.
 1942—R. Lee Hall.
 1943—Charles R. Austrian.
 1944—Jacob W. Bird.
 1945—Carroll Lockard.
 1946—Thomas R. Chambers.
 1947—William T. Hammond.
 1948—Charles W. Maxson.
 1949—W. Houston Toulson.
 1950—A. Austin Pearre.
 1951—Walter Dent Wise.
 1952—Alan M. Chesney.
 1953—Maurice C. Pincoffs.

LIST OF VICE-PRESIDENTS

1799–1848—(Unknown.)
 1848–1849—John Readel, Jacob Baer,
 P. Wroth.
 1850–1851—Joel Hopkins, P. Wroth,
 Jacob Fisher.
 1851–1853—(Unknown.)
 1853–1854—John Fonerden, Albert
 Ritchie, P. Wroth.
 1854–1855—Geo. C. M. Roberts,
 Samuel P. Smith, Joel Hopkins.
 1855–1856—George C. M. Roberts,
 G. W. Miltenberger, M. Diffen-
 derfer.

* Transactions, 1953.

1856–1857—P. Wroth, Wm. H. Davis,
 Samuel Smith.
 1857–1858—William Waters, Fred-
 erick Dorsey, Joel Hopkins.
 1858–1859—Samuel Chew, Stephen
 N. C. White, Samuel K. Handy.
 1859–1863—John R. W. Dunbar,
 Samuel Chew, Wm. M. Kemp.
 1863–1871—John R. W. Dunbar,
 Wm. M. Kemp, John C. Hopkins.
 1871–1872—C. H. Ohr, Edward War-
 ren, Richard McSherry.
 1872–1873—(Unknown.)

1873–1874—Samuel Chew, H. M.
 Wilson, A. B. Arnold.
 1874–1875—Francis T. Miles, James
 A. Steuart, D. A. O'Donnell.
 1875–1876—Christopher Johnston, A.
 B. Arnold, J. C. Thomas.
 1876–1877—P. C. Williams, James A.
 Steuart, Francis T. Miles.
 1877–1878—S. C. Chew, F. E.
 Chatard, Charles H. Jones.
 1878–1879—James C. Thomas, L.
 McLane Tiffany.

DIRECTORY

1879-1880—H. P. C. Wilson, James A. Steuart.

1880-1881—L. McLane Tiffany, G. Ellis Porter.

1881-1882—A. H. Bayly, I. E. Atkinson.

1882-1883—Thomas S. Latimer, Richard McSherry.

1883-1884—W. Stump Forward, J. S. Lynch.

1884-1885—John R. Quinan, I. E. Atkinson.

1885-1886—E. C. Baldwin, J. E. Michael.

1886-1887—Thomas Opie, Richard Gundry.

1887-1888—Charles H. Jones, James Carey Thomas.

1888-1889—J. E. Michael, Thomas P. Evans.

1889-1890—T. A. Ashby, C. G. W. Macgill.

1890-1891—Geo. H. Rohé, J. McPherson Scott.

1891-1892—J. W. Humrichouse, David Streett.

1892-1893—J. W. Downey, J. W. Chambers.

1893-1894—John D. Blake, John S. Fulton.

1894-1895—Charles H. Jones, W. M. Nibiser.

1895-1896—Charles G. Hill, Clotworthy Birnie.

1896-1897—Wilmer Brinton, Randolph Winslow.

1897-1898—W. F. A. Kemp, George J. Preston.

1898-1899—Mary Sherwood, J. McPherson Scott.

1899-1900—Samuel Theobald, David Streett.

1900-1901—Samuel T. Earle, Jr., J. B. R. Purnell.

1901-1902—Harry Friedenwald, B. W. Goldsborough.

1902-1903—Samuel T. Earle, Jr., Wilmer Brinton.

1903-1904—Franklin B. Smith, James M. Craighill.

1904-1905—Samuel T. Earle, Jr., D. C. R. Miller, Julius A. Johnson.

1905-1906—Charles O'Donovan, Thomas M. Chaney, Joseph B. Seth.

1906-1907—William T. Watson, Philip Briscoe, William F. Hines.

1907-1908—Roger Brooke, Henry L. P. Naylor, George Dobbin.

1908-1909—Philip Briscoe, William L. Smith, G. Milton Linthicum.

1909-1910—Philip Briscoe, A. P. Herring, Compton Riely.

1910-1911—J. Staige Davis, H. B. Gantt, Timothy Griffith.

1912—J. L. Riley, D. E. Stone, J. A. Chatard.

1913—J. Staige Davis, C. F. Davison, E. B. Claybrook.

1914—C. R. Winterson, A. L. Franklin, Gordon Wilson.

1915—A. McGlannan, J. E. Deets, R. Lee Hall.

1916—L. C. Carrico, M. D. Norris, J. A. Chatard.

1917—D. E. Stone, A. H. Hawkins, J. M. H. Rowland.

1918—Julius Friedenwald, J. E. Deets, J. McF. Dick.

1919—J. McF. Bergland, Philip Briscoe, J. E. Deets.

1920—T. R. Boggs, A. M. Shipley, Eugene Jones.

1921—J. H. M. Knox, Jr., A. H. Hawkins, C. E. Davidson.

1922—Harry Friedenwald, W. R. White, J. S. Bowen.

1923—J. M. H. Rowland, Harry Friedenwald, Peregrine Wroth, Jr.

1924—C. Urban Smith, J. Percy Wade, E. E. Wolff.

1925—J. S. Bowen, T. B. Johnson, J. McF. Dick.

1926—Standish McCleary, G. Roger Myers, S. A. Nichols.

1927—Standish McCleary, John L. Riley, Frank S. Keating.

1928—J. Albert Chatard, F. B. Hines, R. T. Miller, Jr.

1929—Henry M. Fitzhugh, Robert P. Bay, Thomas R. Boggs.

1930—F. D. Chapplear, W. T. Hammond, F. B. Hines.

1931—W. D. Campbell, H. M. Lankford, Charles Maxson.

1932—W. T. Hammond, John T. King, Jr., Lewis K. Woodward.

1933—S. A. Nichols, E. H. Hutchins, W. S. Seymour.

1934—G. C. Lockard, W. R. White, J. L. Riley.

1935—J. McF. Dick, Louis Hamman, V. D. Miller.

1936—Harvey G. Beck, Norman S. Dudley, Jesse O. Purvis.

1937—Harvey B. Stone, W. A. Gracie, R. Lee Hall.

1938—Frank S. Lynn, Richard C. Dodson, Everard Briscoe.

1939—Victor F. Cullen, Frederic V. Beitler, William D. Noble.

1940—Edward P. Smith, H. A. Cantwell, Charles L. Owens.

1941—Guy L. Hunner, Charles R. Foutz, R. Lee Hall.

1942—Maurice C. Pincoffs, Wm. F. Williams, Jacob W. Bird.

1943—Charles Reid Edwards, A. Austin Pearre, J. Oliver Purvis.

1944—Alan M. Chesney, William D. Campbell, Hugh R. Spencer.

1945—William N. Palmer, Harry R. Slack, Armfield F. Van Bibber.

1946—William D. Noble, Grant E. Ward, John S. Green, Jr.

1947—Huntington Williams, Frank M. Wilson, J. Herbert Bates.

1948—William Neill, Jr., Baltimore; Samuel E. Enfield, Cumberland; F. Seton Waesche, Snow Hill.

1949—Amos R. Koontz, Baltimore; O. H. Binkley, Hagerstown; P. E. Cox, Easton.

1950—I. Ridgeway Trimble, Baltimore; Vincent H. Davis, Chesapeake City; Thomas K. Galvin, Baltimore.

1951—Samuel McLanahan, Baltimore; Frank D. Worthington, Frederick; Frank W. Smith, Chestertown.

1952—Frank J. Geraghty, Baltimore; W. A. Gracie, Cumberland; Deceased 12-28-51; William F. Williams, Cumberland; R. Carmichael Tilghman, Baltimore.

1953—George O. Eaton, Baltimore; Osborne D. Christensen, Salisbury; William F. Williams, Cumberland.

ACTIVE MEMBERS OF COMPONENT SOCIETIES, 1953*

Allegany-Garrett County
Alvarez, Joseph, 101 Third Street,
Oakland, Md.

* Unless otherwise designated.

Ballin, R. W., 62 Greene Street,
Cumberland, Md.

Baumgartner, E. I., Oakland, Md.

Benjamin, Gilbert W., Hillen Station,
Baltimore 2, Md.

Brings, Elizabeth, La Vale, Md.

Brings, Lewis, 57 Greene St., Cumberland, Md.

Cawley, Frank, Memorial Hospital, Cumberland, Md.

Cooper, Leonard S., Medical Building, Cumberland, Md.

Cowherd, J. Kile, 41 Greene Street, Cumberland, Md.

Daugherty, Leslie E., 7 Washington Street, Cumberland, Md.

Davis, Frank U., 22 Washington Street, Cumberland, Md.

Davis, John B., 2 Broadway, Frostburg, Md.

Deming, Herbert V., 125 Bedford Street, Cumberland, Md.

Diehl, H. C., Frostburg, Maryland

Dunne, Thomas B., Office of Surgeon General, Dept. of Army, Preventive Medicine Division, Washington 25, D. C.

Durrett, Clay Earl, 236 Virginia Avenue, Cumberland, Md.

Dyer, John, 3510th Medical Group, Randolph Field Base, Texas

Eliason, H. W., 126 Union St., Cumberland, Md.

Enfield, Samuel E., 116 S. Liberty Street, Cumberland, Md.

Faw, Wylie M., Jr., 5 Washington Street, Cumberland, Md.

Fazenbaker, A. J., Westernport, Maryland

Feaster, James, Oakland, Md.

Frantz, Winter R., City Hall, Cumberland, Md.

Frye, Paul, 110 Mt. Lebanon Dr., Wheeling, W. Va.

Gardner, Charlotte B., 126 Columbia Avenue, Cumberland, Md.

Gattens, Wilbur E., Frostburg, Md.

Grove, Donald B., Medical Building, Cumberland, Md.

Hallinan, James P., 300 Decatur Street, Cumberland, Md.

Harrat, Frank T., 59 E. Main Street, Frostburg, Md.

*Hawkins, Arthur G., Cumberland, Md.

Hodges, Wyllys R., Jr., 122 Centre Street, Cumberland, Md.

Jacobson, Samuel M., Pershing St., Cumberland, Md.

Johnson, James T., Jr., 206 Washington Street, Cumberland, Md.

Jones, Arthur F., 329 Cumberland Ave., Cumberland, Md.

Jones, Emmett Lee, Jr., 50 Pershing Street, Cumberland, Md.

Kroll, Mark, 110 S. Centre Street, Cumberland, Md.

Ley, Leo H., Jr., Cumberland, Md.

Lusby, Thomas F., II, Oakland, Md.

McLane, W. Oliver, Jr., Frostburg, Md.

McLean, James E., 49 Greene Street, Cumberland, Md.

Mance, A. E., Oakland, Md.

Mathews, L. B., 49 Greene Street, Cumberland, Md.

*Matthai, Jacob H., Cumberland, Md.

Mirkin, Abraham J., 115 S. Center Street, Cumberland, Md.

Moseley, W. E., Mt. Savage, Md.

Mozzer, Alexander J., Western Md. Railroad, Cumberland, Md.

Murray, Francis Alan C., 41 Greene Street, Cumberland, Md.

Myers, L. R., 122 S. Centre St., Cumberland, Md.

Owens, Charles L., 305 Washington Street, Cumberland, Md.

Ranson, Leland B., 41 Greene Street, Cumberland, Md.

Rathbone, R. Rhett, 122 S. Centre Street, Cumberland, Md.

Rees, David T., 404 Decatur Street, Cumberland, Md.

Reeves, J. Norman, Westernport, Md.

Reeves, Raymond W., Westernport, Md.

Reiter, Ralph A., 112 Bedford St., Cumberland, Md.

Richards, George J., Lonaconing, Md.

Robinson, H. Thomas, Jr., 132 S. Liberty Street, Cumberland, Md.

Roth, Oliver Ralph, 427 Goethe Street, Cumberland, Md.

Rothstein, Martin M., Frostburg, Maryland

Rozum, John Karol, 305 Decatur Street, Cumberland, Md.

Schindler, Blaine M., 41 Greene Street, Cumberland, Md.

Simons, George, 128 Union Street, Cumberland, Md.

Skitarelic, Benedict, Memorial Hospital, Cumberland, Md.

Stegmaier, James G., 122 S. Centre Street, Cumberland, Md.

*Taylor, E. Don, Lonaconing, Md.

Tepfer, Milton, Friendsville, Md.

Tolson, Howard L., Medical Building, Cumberland, Md.

Trevaskis, R. W., 220 Baltimore Avenue, Cumberland, Md.

Trevaskis, R. W., Jr., 220 Baltimore Avenue, Cumberland, Md.

Van Ormer, W. Alfred, 531 Louisiana Avenue, Cumberland, Md.

Walters, Hilda Jane, 48 Broadway, Frostburg, Md.

Weisman, Saville G., 59 Greene Street, Cumberland, Md.

Wenzel, J. W., Oak and Eighth Streets, Oakland, Md.

Whitworth, Fuller B., 123 Bedford Street, Cumberland, Md.

Williams, Richard Jones, 122 S. Centre Street, Cumberland, Md.

Williams, William F., 122 S. Centre Street, Cumberland, Md.

Wolferman, Adolf, Frostburg, Maryland

Zimmerman, Charles Conrad, 105 S. Centre Street, Cumberland, Md.

Anne Arundel County

Alexander, John G., Crain Highway and 2nd Avenue, Glen Burnie, Md.

Allen, Aris Tee, 10 Carroll St., Annapolis, Md.

Allen, Faye W., 10 Carroll Street, Annapolis, Md.

Anderson, Albert L., Southgate Ave., Annapolis, Maryland

Armstrong, Robert, 71 Franklin St., Annapolis, Md.

Ball, Charles L., Jr., Linthicum Heights, Md.

Basil, George C., 59 Franklin Street, Annapolis, Md.

Beard, J. Howard, Box 626, Annapolis, Md.

Beck, Edward S., 41 Southgate Ave., Annapolis, Md.

Benedict, Ludwig, Crownsville, Md.

Borssuck, Samuel, Amos Garrett Boulevard, Annapolis, Md.

Briscoe, Philip, 212 Prince George Street, Annapolis, Md.

Christhilf, Stuart, Jr., 69 Franklin Street, Annapolis, Md.

*Claffy, John M., Annapolis, Md.

Clark, John A., House of Correction, Jessups, Md.

Faubert, Gustav H., 5 First Avenue, S. E., Glen Burnie, Md.

Field, Edward G., 1 Crain Highway, Glen Burnie, Md.

French, William J., 116 Gloucester St., Annapolis, Md.

Gaalas, A., Green Gables, Box 80, Pasadena, Md.

Gould, Vincent, Mayo, Md.

Grant, Bowie Lynn, Shadyside, Md.

* Deceased.

DIRECTORY

Grimaldi, Pasquale John, 4609 Governor Ritchie Highway, Baltimore 25, Md.
 Grossi, Igino, 201 N. W. Baltimore, Annapolis Blvd., Glen Burnie, Md.
 Hadley, Henry G., 1252 Sixth St., Wash. 4, D. C.
 Hooker, Donald, 90 Cathedral Street, Annapolis, Md.
 Hunt, Barbara, Ewell, Md.
 Johnson, Theodore H., 40 Northwest St., Annapolis, Md.
 Jones, Bobby L., 5 Central Avenue, S.W., Glen Burnie, Md.
 Klawans, Maurice F., Southgate Avenue, Annapolis, Md.
 Klinger, Stephen, Crownsville State Hospital, Crownsville, Md.
 Linhardt, Elmer G., 3 Chesapeake Ave., Eastport, Md.
 Linthicum, Charles, Linthicum Heights, Md.
 Loebel, Julius, 204 Crain Highway, South Glen Burnie, Md.
 MacDonald, Charles R., 7 Central Avenue, Glen Burnie, Md.
 McLaughlin, Randall, Mountain Road, Pasadena, Md.
 Manuzak, Hubert F., 901 Edgerly Road, Harundale, Glen Burnie, Md.
 Martin, James R., 185 Prince George Street, Annapolis, Md.
 Morgenstern, Jacob, Crownsville State Hospital, Crownsville, Md.
 Ochs, Irving L., 51 Southgate Avenue, Annapolis, Md.
 Purvis, Jesse Oliver, 40 Franklin Street, Annapolis, Md.
 Richardson, R. L., 110 Clay Street, Annapolis, Md.
 Rodler, Edith, 42 State Circle, Annapolis, Md.
 Russell, John T., Eastport, Md.
 Shipley, Frank M., 63 College Avenue, Annapolis, Md.
 Skerritt, Edward G., Millersville, Md.
 Sosnowski, A. R., 4016 Ritchie Highway, Baltimore 25, Md.
 Thomas, William Nathaniel, Jr., 71 Franklin Street, Annapolis, Md.
 Trettin, G. Douglas, Severna Park, Md.
 Trevett, Elizabeth Peabody, % American Embassy, Bagdad, Iraq.
 Waite, Merton T., 56 Southgate Ave., Annapolis, Md.

Walker, Stuart H., Carvel Hall, Annapolis, Md.
 Weitzman, Frances E., 130 Lafayette Avenue, Annapolis, Md.
 Welch, Robert S. G., Annapolis, Md.
 Wilkins, Jesse Lee, 232 Prince George Street, Annapolis, Md.
 Willoughby, M. K., Ritchie Highway at Sand Rock Bldg., Severna Park, Md.
 Wilson, Emily H., Harwood, Md.
 Wright, J. LeRoy, Cockeysville, Md.
 Zangara, H. F., 307 Newburg Avenue, Baltimore 28, Md.

Baltimore City

Active Members

Abbott, Thomas G., 4509 Liberty Heights Avenue—7
 Abercrombie, Anna S., 3524 Greenmount Avenue—18
 Abercrombie, Ronald T., 3908 N. Charles Street—18
 Abeshouse, Benjamin S., 100 W. Monument Street—1
 Abramovitz, Leonard J., 2519 Talbot Road—16
 Abrams, Michael A., 1820 Eutaw Place—17
 Abrams, Robert Calvin, 1820 Eutaw Place—17
 Acton, Conrad, 1208 St. Paul Street—2
 Acton, Elizabeth, 700 Cathedral Street—1
 Adams, Frederick K., 1222 N. Caroline Street—13
 Adams, Maurice L., 238 N. Cary Street—23
 Adams, Nicholas Floyd, Jr., 1118 St. Paul Street—2
 Adams, Thurston R., University Hospital—1
 Akman, Leonard Carl, 803 Cathedral Street—1
 Alagia, Damian P., 305 Frederick Avenue—28
 Alecce, A. Andrew, 3330 E. Baltimore Street—24
 Alessi, Edward J., 6217 Harford Road—14
 Alessi, Silvio A., 6217 Harford Road—14
 Allan, Warde B., 6 E. Eager Street—2
 Alvarez de Chaudens, Jose A., 2006 Deering Avenue—30

Anderson, Andrew R., 700 Cathedral Street—1
 Anderson, George Woodrow, Johns Hopkins Hospital—5
 Anderson, Townsend W., 01726034 Hdq. 4th Inf. Div., APO 39, % P.M., New York, N. Y.
 Anderson, Walter A., 3001 Shannon Drive—13
 Andrus, E. Cowles, 24 E. Eager Street—2
 Ankudas, Stanley, 3704 Hillsdale Rd.—7
 Appelfeld, Willard D., 2511 Reisters-town Road—17
 Ardinger, Joseph Stanley, Jr., 1230 Augusta Avenue—29
 Arnold, James G., 11 E. Chase Street—2
 Artigiani, Philibert, 2942 E. Fayette Street—24
 Ascher, Eduard, The Latrobe Apartments—2
 Ashman, Harry, 3700 Garrison Blvd.—15
 Ashman, Leon, 1201 Poplar Grove Street—16
 Ashworth, John William, 1129 St. Paul Street—2
 Askin, John A., 1406 Eutaw Place—17
 Asper, Samuel P., Johns Hopkins Hospital—5
 Athey, H. B., 2504 St. Paul Street—18
 Aubrey, John Forsythe, 2583 Bayshore Drive, Miami, Fla.
 Austrian, Charles R., 1417 Eutaw Place—17
 Ayd, Frank J., 2005 E. Monument Street—5
 Ayd, Frank J., Jr., 6231 York Road—12
 Babb, Dudley C., 1100 N. Charles Street—1
 Bacharach, David, 4500 Bonner Road—16
 Bachman, Leonard, U. S. Naval Hospital, Chelsea, Mass.
 Baetjer, Walter A., 1101 St. Paul Street—2
 Baggott, Bartus T., 3812 Greenmount Avenue—18
 Bagley, Cecil H., The Latrobe Apts.—2
 Bagley, Charles, Jr., The Latrobe Apts.—2

Bagley, Charles, III, University Hospital—1
 Bahnsen, Henry T., Johns Hopkins Hospital—5
 Baker, Benjamin M., Jr., 9 E. Chase Street—2
 Baker, Frank William, Jr., A02240719, 5005th Hospital, APO 949 % P.M., Seattle, Wash.
 Baldwin, Ruth Workman, University Hospital—1
 Balfour, Charles Edward, 1103 St. Paul Street—2
 *Ballard, Edwin Kemp, 1622 Mt. Royal Avenue—17
 Ballard, Margaret B., Medical Arts Bldg.—1
 Ballich, Nicholas L., 11 E. Chase Street—2
 Ballina, Jones B., 1036 N. Calvert Street—2
 *Bampfield, F. J., 1543 Northern Parkway—12
 Banfield, Gilbert L., 722 N. Fulton Avenue—17
 Barnaby, John W., Jr., 1531 E. North Avenue—13
 Barnes, Thomas G., University Hospital—1
 Barnett, Donald J., X-ray Dept., University Hospital—1
 Barranco, S. H., 436 E. Fort Avenue—30
 Battaglia, D. Thomas, 5829 Belair Road—6
 Bauer, Robert E., 5711 Nasco Place —12
 Baum, Max, 1501 N. Milton Avenue —13
 Bawden, George A., Medical Arts Building—1
 Bayer, Ira E., 11 E. Chase Street—2
 Baylin, Morris J., 2040 Eutaw Place —17
 Baylor, John W., 22 E. Gay Street, Westchester, Pa.
 Baylus, Herman H., 1600 Wilkens Avenue—23
 Baylus, Meyer Milby, 2216 Eutaw Place—17
 Beacham, Edmund George, 1721 E. 33rd Street—18
 Beck, Harry McBrine, 120 Midhurst Road—12
 * Beck, Harvey G., 100 E. 23rd Street—18

Beck, Nathaniel M., 2818 St. Paul Street—18
 Beissinger, Heinz F., 5201 Pleasant Street—7
 Benesuns, Joseph G., 110 E. Lombard Street—2
 Benet, Eben Thorpe, Hermit Thrush, Cape Elizabeth, Me.
 Bennett, George E., 4 E. Madison Street—2
 Benson, Carl F., 5111 York Road—12
 Benson, John Fisher, 740 Whittington Avenue, Hot Springs, Ark.
 Berdiansky, Benjamin, 5004 Ritchie Highway—25
 Bereston, Eugene S., 2406 Eutaw Place—17
 Bergland, John McF., 1014 St. Paul Street—2
 Berman, Edgar F., 803 Cathedral Street—1
 Bernstein, Bertram M., 2424 Eutaw Place—17
 Bernstein, Alan, 1109 N. Calvert Street—2
 Berry, Robert Zinn, Medical Arts Building—1
 Bestebreurtje, Annie M., University Hospital—1
 Betz, Barbara J., 1503 Bolton Street —17
 Biehl, Harold Paul, 11 E. Chase Street—2
 * Billups, Gaius W., 504 Murdock Road—12
 Bindeman, William Wylie, U. S. Army Hospital, Ft. Lawton, Wash.
 Bing, James F., 609 Cathedral St. —1
 Bird, Joseph Gordon, Northwood Professional Center, 1532 Havenwood Road—18
 Bishop, G. W., Sheridan Avenue and York Road—12
 Bix, Hans, 2516 Linden Avenue—17
 Blair, Emil, Duke University, Durham, N. C.
 * Blake, Herbert C., Medical Arts Bldg.—1
 Blalock, Alfred, Johns Hopkins Hospital—5
 Blazek, Charles Joseph, 101 E. Biddle Street—2
 Blechman, A. Joel, 3426 Bank Street —24
 Block, Walter P., 509 Drury Lane—29

Blum, Joseph S., 1115 N. Calvert Street—2
 Blum, Louis V., 2310 Eutaw Place—17
 Bodenheimer, Ernst, 1212 Eutaw Place—17
 Bogorad, Daniel E., 1905 W. Baltimore Street—23
 Bohlman, Harold R., Medical Arts Bldg.—1
 Bokhair, Lee, Maryland General Hospital—1
 Bongardt, Henry F., 201 W. Madison Street—1
 Borden, Jesse N., 1109 N. Calvert Street—2
 Borden, Melvin N., 5000 Old Frederick Road—29
 Bordley, James, Jr., 330 N. Charles Street—1
 Bordley, John Earle, Johns Hopkins Hospital—5
 Borges, Francis Joseph, 2528 Maryland Avenue—18
 Borkovic, George William, 5115 Old Frederick Road—29
 Borkovich, Katherine H., 11 E. Chase Street—2
 Boslow, Harold Meyer, 700 Cathedral Street—1
 Boss, M. Theodore, Medical Arts Bldg.—1
 Bossyns, Albert J., 4122 Kathland Avenue—7
 Bowe, Dudley P., 2 W. Read Street —1
 Bowie, Harry Clay, 1011 N. Calvert Street—2
 Bowie, Helen, 3927 Canterbury Road —18
 Bowyer, Thomas S., Medical Arts Bldg.—1
 Boyd, Charles Holmes, 24 E. Eager Street—2
 Boyd, Kenneth B., 1114 St. Paul Street—2
 Boyle, J. Brooks, Jr., 1226 St. Paul Street—2
 Brack, Charles Bernard, 11 E. Chase Street—2
 Brackin, John T., Jr., 346 Rosemary Avenue, Ambler, Pa.
 Bradley, J. Edmund, University Hospital—1
 Brady, Frank Joseph, 4530 Marble Hall Road—12
 Brady, Leo, Medical Arts Bldg.—1

* Deceased.

DIRECTORY

Brager, Simon, 1800 N. Charles Street—1
 Brandon, Russell R., 1606 Kelly Avenue—9
 Branion, A. Brooks, Cambridge Arms Apartments—18
 Brantigan, Otto C., 104 W. Madison Street—1
 Breitstein, Moses L., 1213 Eutaw Place—17
 Brendle, William K., Vanderbilt General Hospital, Nashville, Tenn.
 Brennan, Thomas J., 5217 Harford Road—14
 Brickman, Helen Cicely, Hospital for the Women of Maryland—17
 Bridgman, E. W., 104 Elmhurst Road—10
 Brinsfield, Carlton, 1231 Gleneagle Road—12
 Bronushas, I. Benedict, 3037 O'Donnell Street—24
 Bronushas, Joseph B. Bernard, 3037 O'Donnell Street—24
 Brooks, Ross C., 2512 E. Monument Street—5
 Brouillet, George H., 102 Dunkirk Road—12
 Brown, Ernest Claiborne, Jr., 1101 N. Calvert Street—2
 Brown, James, Jr., Medical Arts Bldg.—1
 Brown, Paul, 3602 Liberty Heights Avenue—17
 Brown, Webster H., 11 E. Biddle Street—2
 Browne, James S., University Hospital—1
 Browne, Rayner, 1500 E. Madison Street—5
 Broyles, Edwin N., 1100 N. Charles Street—1
 Brumback, Frank Edgar, 1339 Pentwood Road—12
 Brumback, Joseph E., Medical Arts Bldg.—1
 Brumback, Joseph E., Jr., 212 Goodale Road—12
 Bubert, Howard M., Medical Arts Bldg.—1
 Buchness, Anthony V., 110 E. Lombard Street—2
 Buchness, John A., 110 E. Lombard Street—2
 Buck, Walter B., 18 E. Eager Street —2
 Bundick, William R., 840 Park Avenue—1
 Burger, T. Terry, 3301 N. Charles Street—18
 Burgin, Bernard, 6721 Reisterstown Road—15
 Burnett, Jack M., 1401 Stonewood Road—12
 Butler, W. W. S., III, 1940 McEl-derry St.—5
 Butler, W. Berkley, 2033 Druid Hill Avenue—17
 Byerly, M. Paul, 3033 W. North Avenue—16
 Cahn, Charles A., 2145 W. Baltimore Street—23
 Camp, Leah Rosenblatt, 3705 Liberty Heights Avenue—15
 Camp, Oscar B., 3705 Liberty Heights Avenue—15
 Campbell, Charles R., 718 Dolphin Street—17
 * Cannon, Burdelle Sittler, 509 Medical Arts Bldg.—1
 Cantrell, James R., Johns Hopkins Hospital—5
 Caplan, Lester H., 4208 Colonial Road—8
 Carey, T. Nelson, 1014 St. Paul Street—2
 Carliner, Paul Elliott, 2217 South Road—9
 * Carman, Richard Perry, 3602 Frederick Avenue—29
 Carozza, Anthony F., 5217 York Road—12
 Carr, Charles E., 6201 York Road —12
 Carr, James D., 1427 Madison Avenue—17
 Carroll, H. Roland, 4202 Charlote Road—18
 Casler, DeWitt B., 13 W. Chase Street—2
 Castagna, Joseph V., 1011 N. Charles Street—2
 Chalfant, A. Stuart, 6210 York Road—12
 Chambers, Earl Leroy, 4108 Liberty Heights Avenue—7
 Chambers, Ewan Buchanan, 3408 St. Paul Street—18
 Chambers, John W., 18 W. Franklin Street—1
 Chambers, Robert George, 945 Ellicott Driveway—16
 Chambers, Thomas R., 18 W. Franklin Street—1
 Chant, Harry L., Johns Hopkins Hospital—5
 Chase, William Edward, Div. of Urology, Henry Ford Hospital, Detroit 2, Mich.
 Chatard, Ferdinand Edme, IV, 15 E. Biddle Street—2
 Chatard, J. Albert, 15 E. Biddle Street—2
 Checket, Pierson M., 1801 Eutaw Place—17
 Chenowith, Robert Franklin, 1114 St. Paul Street—2
 Chesney, Alan M., 1419 Eutaw Place—17
 Chioldi, Nathan E., 1116 St. Paul Street—2
 Chisolm, J. J., 6 E. Eager Street—2
 Clapp, Clyde A., 513 N. Charles Street—1
 Classen, John Newell, 2923 St. Paul Street—18
 Cleary, Louis F., 6420 Reisterstown Road—15
 Clemens, Raymond L., 3 Upland Rd. —10
 Clemson, Earl P., 701 Cathedral Street—1
 Clough, Paul W., 24 E. Eager Street —2
 Cobb, John Candler, 615 N. Wolfe Street—5
 Coblenz, R. G., 11 E. Chase Street —2
 Cohen, Bernard J., Marlborough Apts.—17
 Cohen, Harry, 803 Cathedral Street —1
 Cohen, Irvin H., U. S. Army Hospital, Fort Sill, Okla.
 Cohen, Jonas Harold, 6702 Park Heights Avenue—15
 Cohen, Morris M., 1115 St. Paul Street—2
 Cohn, L. Clarence, 3301 N. Charles Street—18
 Cole, Alfred, 136 S. Hilton Street —29
 * Cole, John Wesley, 6604 Loch Raven Blvd.—Towson 4
 Cole, Norman Brown, University Club—1
 Coleman, William J., 2810 Chelsea Terrace—16

* Deceased.

Collenberg, H. T., 2 W. Read Street
—1

Collins, James M., 3321 Frederick Avenue—29

Colston, J. A. C., 1201 N. Calvert Street—2

Compton, Beverley C., 1014 St. Paul Street—2

Conley, C. Lockard, 120 E. Lake Avenue—12

Conn, Jacob Harry, 2325 Eutaw Place—17

Connolly, Harry John, 13 E. Eager Street—2

Constadt, Hans Walter, 814 Medical Arts Bldg.—1

Cook, Elmer E., Jr., 2431 Maryland Avenue—18

Cook, Sarah, 2609 Lee Boulevard, Apt. 202, Arlington 4, Va.

Cooley, Robert N., Johns Hopkins Hospital—5

Cooper, Theodore, 2201 Eutaw Place —17

Cope, Clyde B., Personnel Health Clinic, Johns Hopkins Hospital—5

Copeland, Herbert B., 2237 Eutaw Place—17

Cordi, Joseph M., 1261 E. Belvedere Avenue—12

Cornbrooks, Ernest I., Jr., Medical Arts Bldg.—1

Costantini, John, 234 S. Conkling Street—24

Cotter, Edward Francis, 6 E. Read Street—2

* Cotton, Albertus, 101 E. Preston Street—2

Covington, E. Eugene, 828 Park Avenue—1

Cox, William Franklin, 3rd, 3006 Deepwood Road—18

Crimy, Charles P., 2722 E. Monument Street—5

Crocker, Melvin Hugh, 1204 St. Paul Street—2

Crosby, Robert MacGonicle Nelson, 11 E. Chase Street—2

Cross, Ernest S., 1030 N. Calvert Street—2

Cross, Ernest S., Jr., 4408 Atwick Road—10

Cross, Richard J., Randolph Field, Tex.

Crowe, Samuel J., Tuscany Apartments—10

Crowther, Aloho H., 4209 Frederick Avenue—29

* Cullen, Thomas Stephen, 20 E. Eager Street—2

Cumin, Milton H., 4302 Springdale Avenue—7

Cunningham, Raymond M., 11 E. Chase Street—2

Currie, Dwight McL., 11 E. Chase Street—2

Curtis, Raymond M., 113 Beechdale Road—10

Daly, Harold Lawrence, Jr., 3300 W. North Avenue—16

Daly, Miriam Shamer, 3300 W. North Avenue—16

Dana, Edward R., 4214 Greenway —18

Dandy, Walter E., Jr., 700 W. Melrose Avenue—10

Daniels, Thomas F., 6 E. Eager Street—2

D'Antonio, Joseph, 127 Riverthorn Road—20

Darby, William Arthur, Medical Arts Bldg.—1

Davidov, Nathan J., 3218 Eastern Avenue—24

Davidson, Charles Nuchols, Medical Arts Bldg.—1

Davidson, Nachman, 812 Park Avenue—1

Davies, Arthur J., 800 W. 33rd Street —11

Davis, E. Hollister, 3301 N. Charles Street—18

Davis, Frank Willard, Jr., Johns Hopkins Hospital—5

Davis, John R., Jr., Medical Arts Building—1

Davis, Marvin Hersch, 803 Cathedral Street—1

Davis, William Bowdoin, 701 Cathedral Street—1

Day, Newland Edward, 4 E. 33rd Street—18

Deane, Garrett E., 5402 Edmondson Avenue—29

Debuskey, Matthew, 2412 Eutaw Place—17

DeCarlo, John, Jr., 1211 Cochran Avenue—12

Deckert, William Allen, 1114 St. Paul Street—2

De Hoff, George W., 2020 N. Charles Street—18

De Hoff, John Burling, 2020 N. Charles Street—18

Deibel, Harry, 1224 Hanover Street —30

Delfs, Eleanor, Johns Hopkins Hospital—5

Demarco, Salvatore, Jr., 715 N. Charles Street—1

Dennis, John Murray, University Hospital—1

Denny, Walter L., Brady Urological Institute, Johns Hopkins Hospital —5

De Vincentis, Michael Louis, 11 E. Chase Street—2

Dickey, Francis G., 736 Northern Parkway—12

Dickson, Lawrie C., Jr., 1373 Cadieus Road, Grosse Point 30, Mich.

Diehl, William K., 11 E. Chase Street—2

Diener, Louis, 2449 Eutaw Place—17

Diggs, Everett S., 11 E. Chase Street —2

Di Paula, Anthony F., 11 E. Chase Street—2

Dix, Harold C., 405 N. Charles Street—1

Dixon, Alfred B., 229 E. 33rd Street —18

Dixon, Darius McClelland, Medical Arts Bldg.—1

Dixon, William Thomas, Ft. Sam Houston, Tex.

Dobihal, Louis Charles, 447 N. Kenwood Avenue—24

Dodd, William A., 700 N. Charles Street—1

Doeller, Charles Henry, Jr., 1025 N. Calvert Street—2

Doran, William T., Jr., 221 W. Lanvale Street—17

Dorf, Herman J., 3103 Garrison Blvd.—16

Dorman, John William, Jr., 1305 Round Hill Road—18

Douglass, Carleton Cecil, 15 E. Biddle Street—2

Douglass, Louis H., University Hospital—1

Doukas, James A., 3810 Lochern Drive—7

Drenga, Joseph F., 209 S. Chester Street—31

Drozd, Joseph, 240 S. Ann Street —31

* Deceased.

DIRECTORY

Dudley, Albert Henry, Jr., 1559 Sheffield Road—18

Duffy, William C., 1120 St. Paul Street—2

Dugan, Hammond J., Jr., 15 E. Biddle Street—2

Dumler, John C., Medical Arts Building—1

Dunnigan, William C., 4916 Harford Road—14

Dwyer, Frank P., Jr., 2507 Lyon Street, Hillcrest Hgts., Wash. 20, D. C.

Eareckson, Vincent O., Jr., 2309 Elsinor Avenue—16

Eastland, John Sheldon, Medical Arts Bldg.—1

Eastman, Nicholson J., Johns Hopkins Hospital—5

Eaton, George O., 4 E. Madison Street—2

Eaton, W. Drummond, 11 E. Chase Street—2

Ebeling, Karl W., 3311 St. Paul Street—18

Ebeling, William Carl, University Hospital—1

Edel, John W., Jr., 3403 Garrison Avenue—15

Edgerton, Milton T., Johns Hopkins Hospital—5

Edlow, Ernest S., 2353 Eutaw Place —17

Edmunds, Page, 4417 Underwood Road—18

Edwards, C. Reid, University Hospital—1

Edwards, Monte, Medical Arts Bldg. —1

Ehrlich, Daniel, 3911 Wabash Avenue —15

Eisenberg, Albert, 2200 Mayfield Avenue—13

Eisenberg, Leon, 1801 W. Baltimore Street—23

Elder, John D., Jr., Barnes Hospital, 600 S. Kingshighway, St. Louis 10, Mo.

Elder, Franklin Charles, 2201 Echadale Avenue—14

Elgin, William Worcester, Sheppard and Enoch Pratt Hospital, Towson —4

Ellis, Francis A., 8 E. Madison Street —2

Ellison, Emanuel S., 107 E. West Street—30

English, Max R., 5713 Belair Road —6

Ensberg, Dorence L., V. A. Hospital, 3900 Loch Raven Blvd.—18

Ephraim, Meyer, 443 E. 25th Street —18

Erwin, John J., Medical Arts Bldg.—1

Evans, John, Medical Arts Bldg.—1

Everett, Houston Spencer, 11 E. Chase Street—2

Ewald, August L., 36 York Court—18

Faraino, Frank A., Baltimore City Hospitals—24

Farber, George J., 1037 St. Paul Street—2

Fargo, Lee K., 1800 N. Charles Street—1

Farley, Julie, 418 Northway—18

Fearing, William Lumsden, 3025 Belair Road—13

Feinglos, Israel J., 2002 E. Pratt Street—31

Feldman, Maurice, 747 Lake Drive —17

Feldman, Maurice, Jr., Latrobe Apts. —2

Feldman, S. Charles, 1440 E. Baltimore Street—31

fenby, John S., 3522 Greenmount Avenue—18

Ferguson, W. Richard, 1107 St. Paul Street—2

Field, Arnold Lewis, 901 Cathedral Street—1

Filtzer, David Leonard, 1411 Eutaw Place—17

* Fine, Morris A., 118 Aisquith Street—2

Fineman, Jerome, 3700 Garrison Blvd.—15

Finesinger, Jacob Ellis, Dept. of Psychiatry, Univ. of Md. School of Medicine—1

Finkelstein, Abraham H., 11 E. Chase Street—2

Finkelstein, Ruth, Medical Arts Building—1

Finney, George Gross, 2947 St. Paul Street—18

Finney, John M. T., Jr., 2947 St. Paul Street—18

Firor, Warfield M., 1101 N. Calvert Street—2

Firor, Whitmer B., 1100 N. Charles Street—1

Fishel, Elliott Raphael, 821 Chauncey Avenue—17

Fisher, A. Murray, 18 E. Eager Street—2

Fisher, Russell S., 934 Dulaney Valley Road—Towson 4

Fisher, William A., Jr., 20 Blythewood Road—10

Fitzpatrick, Vincent de Paul, Jr., 1120 St. Paul Street—2

* Fleck, Harvey K., 2940 Wyman Parkway—11

Fleischer, Walter E., 3400 E. Chase Street—13

Flippin, Eugene L., 2612 Elsinore Avenue—16

Flynn, Philip Daniel, 11 E. Chase Street—2

Ford, James Arthur, 4638 Homestead Road, Jacksonville, Fla.

Fordyce, Cless Y., 1001 St. Paul Street—2

* Forsythe, Hugh, 424 E. North Avenue—2

Fort, Wetherbee, 1118 St. Paul Street—2

Foster, Herbert M., 2824 St. Paul Street—18

Fox, Lay Martin, 5001 Midwood Avenue—12

Fox, Samuel Louis, 1205 St. Paul Street—2

Frank, Jerome D., 603 W. University Parkway—10

* Franklin, David, 122 W. Lee Street—1

Franklin, Haswell D., 1123 St. Paul Street—2

Franz, J. Howard, 1127 St. Paul Street—2

Frederickson, Howard N., 3813 Patterson Ave.—7

Freedom, Leon, 1031 St. Paul Street —2

Freeman, Norman Randolph, Jr., 210 Northway—18

Frenkil, James, 1422 Park Avenue —17

Frey, Edward L., Jr., 2 W. Read Street—1

Frey, E. William, 1928 Pennsylvania Avenue—17

Fried, Hiram, Medical Arts Bldg.—1

Friedenwald, Edgar B., 1616 Linden Avenue—17

Friedenwald, Jonas S., 1212 Eutaw Place—17

Friedman, Hyman P., 1319 Light Street—30

* Deceased.

Friedman, Joseph, 404 E. North Avenue—2
 Friedman, Marion, 1737 E. North Avenue—13
 Friedman, Paul N., 3804 Fairview Avenue—16
 Fuller, Harvey L., 5718 Ridgedale Road—9
 Furmani, Joseph C., University Hospital—1
 Furstenberg, Frank F., 812 Park Avenue—1
 Fusting, William H., 11 E. Chase Street—2
 Futcher, Palmer H., Department of Medicine, Johns Hopkins Hospital —5
 Futterman, Perry, Latrobe Apartments—2
 Gaber, Jerome, 3915 Fordleigh Road —15
 Gaither, Ernest H., 12 E. Eager Street—2
 Gallant, Leonard J., The Latrobe Apartments—2
 Galvin, Gerald A., 322 Suffolk Road —18
 Galvin, Thos. K., 113 W. Monument Street—1
 Ganev, Joseph B., Professional Building, Bradenton, Fla.
 Gann, Mark E., 2800 Lawina Road —16
 Gardner, Francis Sidney, Jr., 1684 Waverly Way—12
 Gareis, Louis C., 1651 Northwick Court—18
 Garis, Robert William, 1103 St. Paul Street—2
 Garlick, William L., 700 N. Charles Street—1
 Garrett, Richard M., Medical Arts Building—1
 Garrison, Alfred S., 2 E. Read Street—2
 Gaskell, Jason H., 637 S. Conkling Street—24
 Gaver, Leo J., 1 Mallow Hill Avenue —29
 Gay, Leslie Newton, 1114 St. Paul Street—2
 Gehlert, Sidney R., Jr., 4700 Pennington Avenue—23
 Gellman, Moses, 1411 Eutaw Place —17
 Genecin, Abraham, 1406 Eutaw Place —17
 Gentry, William D., Jr., Heatherfield Road—10
 Geraghty, Francis Jos., 3047 St. Paul Street—18
 Geraghty, Wm. R., 2225 St. Paul Street—18
 Gerlach, James Johnson, 4 E. Eager Street—2
 Gibbons, J. Robert, 3 Elmhurst Road—10
 Gibbs, Gordon E., University Hospital—1
 Giering, Herman J., 3906 Parkside Drive—6
 Gilbert, Charles Richard Alsop, Box 285, Juncos, Puerto Rico
 Gilkes, Evan A., 601 N. Calhoun Street—17
 Gillis, Andrew Colin, 1033 N. Calvert Street—2
 Gillis, Francis W., 1800 N. Charles Street—1
 Gilmore, William E., 108 E. 33rd Street—18
 Gimbel, Harry S., 2703 Edmondson Avenue—23
 Ginsberg, Milton, 3504 Erdman Avenue—13
 Ginsburg, Leon, 529 N. Charles Street—1
 Glass, Frederic Arthur, 845 Park Avenue—1
 Glassman, Lionel, 6002 Wallis Avenue —15
 Glick, Samuel S., 3914 Park Heights Avenue—15
 Gluck, Francis Wilcox, 100 W. University Parkway—10
 Gluck, Julius C., 5356 Reisterstown Road—10
 Godlove, John Carlton, 409 West King Street, Martinsburg, W. Va.
 Goldbach, Leo John, 6 E. Eager Street—2
 Goldberg, Herman K., 807 Cathedral Street—1
 Goldberg, Raymond B., 803 Cathedral Street—1
 Goldberg, Sigmund, 1422 Park Avenue—17
 Goldberg, Sylvan D., 4412 Elderon Avenue—15
 Goldberg, Victor, 1701 Eutaw Place —17
 Goldman, Abram, 5501 Powhatan Avenue—16
 Goldman, Harris, 1816 W. North Avenue—16
 Goldman, Harry, 2326 Eutaw Place —17
 Goldsbrough, Charles R., 2923 St. Paul Street—18
 Goldstein, A. E., 3505 N. Charles Street—18
 Goldstein, Eugene O., 3911 Brookhill Road—15
 Goldstein, Marvin, 5334 Liberty Heights Avenue—7
 Goldstone, Herbert, 1810 Eutaw Place—17
 Golley, Kyle W., 5103 Harford Road —14
 Golombek, Leonard H., 227 Audrey Lane—Apt. 102, Washington 20, D. C.
 Goodman, Howard, 1513 N. Milton Avenue—13
 Goodman, Jerome Edward, 809 Cathedral Street—1
 Goodman, Julius H., 3400 E. Baltimore Street—24
 Goodman, Louis E., 1211 Eutaw Place—17
 Goodman, Sylvan Chauncey, 2202 Park Avenue—17
 Gordon, Harry H., Sinai Hospital—5
 Gordy, Lyle L., 5106 Harford Road —14
 Gorten, Martin K., 4 E. 32nd Street —18
 Gould, John Joseph, 14 N. East Avenue—24
 Govatos, George, Med. Arts Bldg.—1
 Govons, Sidney Robert, 3923 W. Rogers Avenue—15
 Grafflin, Allan L., 215 Edgevale Road—10
 Graham, R. Walter, 1014 St. Paul Street—2
 Granoff, Hymen L., 2240 Eutaw Place—17
 Gray, Watson W., 1014 St. Paul Street—2
 Graziano, Theodore J., 4019 Alameda Blvd.—18
 Green, John Summerfield, III, 109 E. Melrose Avenue—12
 Greenberg, Sahler M., 4613 Eastern Avenue—24
 Grempler, Walter E., 1013 Poplar Grove Street—16
 Grenzer, William H., 1520 E. 33rd Street—18
 Grimes, S. Butler, 100 W. University Pkwy.—10
 Grob, David, 3406 Cederdale Road —15
 Grose, William Edwin, 1201 N. Calvert Street—2

DIRECTORY

Gross, Joseph Bernard, 2404 Eutaw Place—17
 Grossman, I. Karl, 1212 N. Patterson Park Avenue—13
 Grott, Harold Allan, 8100 Harford Road—14
 Grubb, Wilson, 4 E. 33rd Street—18
 Grumbine, Francis L., 411 Chapelgate Lane—29
 Gubinitsky, Albert, 5415 Park Heights Avenue—15
 Gundersheimer, Herbert N., Cordova Apartments, Lake Drive—17
 Gundry, Lewis P., Relay 27, Md.
 Gundry, Rachel K., Athol, Catonsville—29
 Gutman, Isaac, 817 St. Paul Street —2
 Guttmacher, Manfred S., 1109 N. Calvert Street—2
 Guyton, Jack Smallwood, Johns Hopkins Hospital—5
 Guyton, J. Willis, 1207 E. 36th Street —18
 Haase, John Henry, 4218 Harford Road—14
 Hachtel, Frank W., 122 W. Lafayette Avenue—17
 Hahn, Richard D., 1823 Park Avenue —17
 Haines, John S., 11 E. Chase Street—2
 Halebian, Hratch S., 6003 Bryan Parkway, Dallas, Tex.
 Hall, Arthur T., Jr., 2 E. Read Street —2
 Hall, Elmer G., 1631 E. North Avenue—13
 Hall, William S., 215 Woodlawn Road—10
 Hamburger, Louis P., 1207 Eutaw Place—17
 Hamburger, Louis P., Jr., 1207 Eutaw Place—17
 Hammer, Howell I., 1929 Edmondson Avenue—23
 Hatchett, Richard B., Medical Arts Building—1
 Handelsman, Jacob Charles, 1112 N. Calvert Street—2
 Hankin, Samuel J., 2331 Eutaw Place—17
 * Hanrahan, Edward M., Jr., 1201 N. Calvert Street—2
 Hanson, Arthur M., 40 Maple Drive —28

Harbold, Harold V., 4706 Harford Road—14
 Hardy, Janet B., Glenarm, Md.
 Harmon, Louis E., 2224 Madison Avenue—17
 Harper, Paul, 615 N. Wolfe Street—5
 Harris, S. Elliott, 3701 Calloway Avenue—15
 Harris, Thomas W., 1824 W. Franklin Street—23
 Harrison, Edmund P. H., 2903 N. Charles Street—18
 Harrison, Harold E., 3001 Fordney Lane—7
 Hart, Jeremiah A., 311 W. 31st Street—11
 Hartman, Oscar, 1801 Eutaw Place —17
 Hartman, William L., 5831 The Alameda—18
 Hartz, Alvin S., 4017 Elderon Avenue—15
 Hartz, Jerome, 11 E. Chase Street—2
 Harvey, A. McGehee, Johns Hopkins Hospital—5
 Harvey, John Collins, 500 N. Washington Street—5
 Hawkins, John Frederick, Jr., Dividing Road, Manhattan Beach, Severna Park, Md.
 Haws, John March, 1101 N. Calvert Street—2
 Hayleck, Mary L., 4401 Underwood Road—18
 Hayward, Eugene H., 115 E. Eager Street—2
 Healy, Robert F., Medical Arts Bldg.—1
 Hebb, Donald B., Cockeysville, Md.
 Heghinian, Jeanette R., 2212 South Road—9
 Heldrich, Frederick Joseph, Jr., 1156 Longwood Street—16
 Helfrich, Raymond F., 519 Lyndhurst Street—29
 Helfrich, William G., 5006 Roland Avenue—10
 Henning, Emil Heller, Jr., 601 Winans Way—29
 Hensen, Henry Mathias, 0261356, 279th Station Hospital, APO 742, % Postmaster, New York, N. Y.
 Herman, N. B., 1041 St. Paul Street —2
 Herold, Paul Garmer, 1222 Walters Avenue—12

Hersperger, W. Grafton, 12 E. 33rd Street—18
 Hewitt, J. Frank, 922 W. University Pkwy.—10
 * Hibbits, John Thomas, Medical Arts Bldg.—1
 Higgins, I. Bradshaw, 2243 Madison Avenue—17
 Highstein, Benjamin, 121 S. Highland Avenue—24
 Highstein, Gustav, 3503 Garrison Blvd.—15
 Hill, Lewis B., Sheppard-Enoch Pratt Hospital, Towson 4, Md.
 Hills, Ralph G., 18 E. Eager Street —2
 Himelfarb, Albert Joseph, 1801 Eutaw Place—17
 Hirshfeld, John H., 6919 Harford Road—14
 Hobelman, Charles F., 3915 Juniper Road—18
 Hoffman, Elmer, 3200 Carlisle Avenue —16
 Hoffman, Reuben, 3602 Forest Park Avenue—16
 Hogan, J. F., 7 E. Preston Street—2
 Holden, Frederick A., Medical Arts Building—1
 Hollander, David H., 5514 Kemper Road—10
 Holljes, Henry Wirt Duvall, 3308 W. North Avenue—16
 * Holly, Julius David, 7701 Seven Mile Lane—8
 Holt, Earl K., 407 Sudbrook Road—8 Pikesville
 * Homer, Harry L., Riderwood, Md.
 Hood, Bowman J., 317 Broxton Road —12
 Hooper, Z. Vance, 3534 Ellerslie Avenue—18
 Hopkins, H. Hanford, 1201 N. Calvert Street—2
 Hopkins, James E. T., 104 W. Madison Street—1
 Hopkins, John Vernon, 129 E. Redwood Street—2
 Horine, Cyrus F., Medical Arts Bldg.—1
 Horning, Edward Douglas, 18 W. Franklin Street—1
 Horton, William Preisz, 3411 Guilford Terrace—18
 Howard, John Eager, Johns Hopkins Hospital—5

* Deceased.

Howard, John Tilden, 12 E. Eager Street—2
 Huffer, Virginia, Spring Grove Hospital—28
 Hull, Harry Clay, Medical Arts Bldg.—1
 Hulla, Jaroslav, 2214 E. Fayette Street—31
 Hundley, J. Mason, Jr., Medical Arts Bldg.—1
 Hunner, Guy Le Roy, Medical Arts Bldg.—1
 Hurwitz, Abraham B., 3048 W. North Avenue—16
 Hurwitz, Chester E., 2218 Eutaw Place—17
 Hutchins, Amos F., 1227 N. Calvert Street—2
 Hutchins, Elliott H., 1227 N. Calvert Street—2
 Hyde, Harry C., 1100 E. North Avenue—2
 Hyde, John Charles, 106 N. Potomac Street—24
 Hyman, Calvin, 2356 Eutaw Place —17
 Hyman, Nathan B., 2502 W. Rogers Avenue—15
 Iliff, Charles Edwin, 12 W. Read Street—1
 Ingalls, George Sam, 703 Cathedral Street—1
 Insley, J. Knox, Jr., 4312 Parkside Drive—6
 Isaacs, Benjamin H., 2600 E. Baltimore Street—24
 Jackson, Robert L., 600 N. Arlington Avenue—17
 Jacobs, Louis L., 1700 Eutaw Place —17
 Jacobson, Meyer William, 2310 Eutaw Place—17
 Jaffe, Marvin, 1101 N. Calvert Street —2
 Jahreiss, Walter O., 4212 Patterson Avenue—15
 Jandorf, R. Donald, Riviera Apts., 3-J, Lake Drive—17
 * Janney, Francis W., 405 N. Charles Street—1
 Janney, Nathan 7101 Harford Road —14
 Januszeski, Francis J., 540 N. Lincoln Avenue—5
 Jarrett, Edwin B., 11 E. Chase Street —2

Jaworski, Melvin J., 2711 Eastern Avenue—24
 Jennings, F. Leslie, Medical Arts Bldg.—1
 Jeppi, Joseph, 10 E. Read Street—2
 Jerardi, Joseph V., 107 Armagh Drive—12
 Jewett, Hugh J., 1201 N. Calvert Street—2
 Johns, Thomas Nelson Page, Johns Hopkins Hospital—5
 Johnson, Edward S., 203 Chancery Road—18
 Johnson, Elliott W., 3432 Frederick Road—29
 Johnson, Marius P., Medical Arts Bldg.—1
 Johnson, Robert W., Jr., 4 E. Madison Street—2
 Johnson, Robert W., III, 1014 St. Paul Street—2
 Johnson, William R., Medical Arts Bldg.—1
 Jones, Benjamin F., 5F Garden Apartments—10
 Jones, Everett D., 101 E. Biddle Street—2
 Jones, Georganna Seegar, Medical Arts Building—1
 Jones, H. Alvan, 1107 St. Paul Street —2
 Jones, Howard W., Jr., Medical Arts Building—1
 Josephs, David, U. S. Army Hospital Ft. Campbell, Kentucky
 Joska, Vincent V., 3714 Loch Raven Blvd.—18
 Joslin, Blackburn Smith, 105 Woodlawn Road—10
 Joslin, C. Loring, 11 E. Chase Street—2
 Kadan, Ferd E., 1308 Ramblewood Road—12
 Kader, Benjamin, 2306 Eutaw Place —17
 Kallins, Edward S., 4300 Liberty Heights Avenue—7
 Kaltreider, D. Frank, 1526 Northwick Road—18
 Kammer, William H., Jr., 612 W. 40th Street—11
 Kane, Harry F., 913 E. Belvedere Avenue—12
 Kaplan, Isadore, 3314 Marnat Road —8
 Kappelman, Melvin D., 817 St. Paul Street—2

Kardash, Theodore, Medical Arts Building—1
 Karfgin, Arthur, Northwood Apts.—18
 Karfgin, Walter E., 4331 Harford Road—14
 Karns, Clyde F., Medical Arts Bldg. —1
 Karns, James R., 700 Cathedral Street—1
 Kates, Harry Franklin, 517 Scott Street—30
 Katzenberger, James W., Medical Arts Bldg.—1
 Kayser, Fayne Albert, Medical Arts Bldg.—1
 Keller, Charles J., 222 W. Monument Street—1
 Kelly, Bernard V., National Marine Bank Bldg.—2
 Kelly, Vernon C., 13 E. Eager Street —2
 Kelmenson, Harry, 1308 Eutaw Place —17
 Kemick, Irvin B., 5416 Reisterstown Road—15
 Kemler, J. I., 1908 Eutaw Place—17
 Kemp, Katherine Virdin, 1300 Wildwood Parkway—29
 Keown, Lauriston L., 431 E. Lake Avenue—12
 * Keown, Thomas William, 1938 Linden Avenue—17
 Kerman, Edward F., 3700 Liberty Heights Avenue—15
 Kern, Howard M., Esplanade Apartments—17
 Ketron, Lloyd W., 1125 St. Paul Street—2
 Keyser, R. L., Wentworth Apts.—1
 Kieffer, Richard F., 200 W. Baltimore Street—1
 Kieffer, Richard F., Jr., 5220 Spring-lake Way—12
 Kiel, August, Jr., 1715 Northbourne Road—14
 Kilby, Walter L., Medical Arts Bldg. —1
 Kimberly, Robert C., 802 Cathedral Street—1
 Kimzey, F. J., 2700 Harford Avenue —18
 King, John Theodore, 1210 Eutaw Place—17
 King, Joseph D. B., 404 Hawthorn Road—10

* Deceased.

DIRECTORY

Kirby, Francis Joseph, 110 E. North Avenue—2
 Kirkpatrick, Crawford N., Jr., 6 E. Eager Street—2
 Kirsh, Milton B., 2320 Eutaw Place —17
 Kitlowski, Edward A., 3301 N. Charles Street—18
 Kleiman, Bernard S., 1113 N. Calvert Street—2
 Kleiman, Norman R., 3803 Edmondson Avenue—29
 Klemkowski, Irvin P., 11 E. Chase Street—2
 Klijanowicz, Stanley B., 3500 Erdman Avenue—13
 Klimes, Louis F., 2623 E. Monument Street—5
 Klinefelter, Harry F., Jr., 1101 N. Calvert Street—2
 Kloman, E. H., 44 W. Biddle Street —1
 Klotz, Ben, 817 St. Paul Street—2
 *Knapp, Hubert Clement, 3123 N. Calvert Street—18
 Knipp, George A., 4116 Edmondson Avenue—29
 Knipp, Harry Lester, 4116 Edmondson Avenue—29
 Knowles, F. Edwin, Jr., 513 N. Charles Street—1
 *Knox, J. H. M., Jr., 2919 St. Paul Street—18
 Knox, James H. Mason, III, 600 W. Belvedere Ave.—10
 Kochman, Leon A., 3508 Dennison Road—15
 Kohlerman, Nicholas John, The Latrobe—2
 Kohn, Walter, 102 E. Fort Avenue —30
 Kolman, Lester N., 3700 Park Heights Avenue—15
 Kolodner, Louis J., 2502 Eutaw Place —17
 Konigsberg, Wilfred K., 1211 Eutaw Place—17
 Koontz, Amos R., 1014 St. Paul Street—2
 Kourey, Salem W., 4404 Bedford Place—18
 Krause, Louis, 11 E. Chase Street—2
 Kremen, Abraham, 2355 Eutaw Place —17
 Krepp, Martin W., 4202 Kolb Avenue —6

Kress, Milton B., Medical Arts Building—1
 Krieg, Edward L. J., 5019 Old Frederick Road—29
 *Kroll, Louis J., 4101 Springdale Avenue—7
 Krulevitz, Keaciel K., 244 N. Hilton Street—29
 Krumrein, Louis Frederick, 722 N. Kenwood Avenue—5
 Kunkowski, Andrew, 2529 Eastern Avenue—24
 Kurland, Albert A., 817 St. Paul Street—2
 Kyper, Fred T., 421 Medical Arts Building—1
 Lachman, Harry, 2322 Callow Avenue —17
 Laforest, Albert L., 822 N. Bond Street—5
 Lally, Leo A., 3517 Edmondson Avenue—29
 Lambros, Byruth Lenson, 213 Mallow Hill Rd.—29
 Lang, Milton Charles, 2117 Belair Road—13
 Langeluttig, Harry Vernon, 715 N. Charles Street—1
 Langworthy, Orthello R., 1503 Bolton Street—17
 Laroque, Herbert E., 1800 N. Charles Street—1
 Lasell, Eldridge L., Greenway Apartments, 34th and Charles Streets—18
 Latham, Ernest Floyd, Johns Hopkins Hospital—5
 Latham, Doris Vivian, Johns Hopkins Hospital—5
 Laukaitis, Joseph, 679 Washington Blvd.—30
 Lavenstein, Arnold F., 5715 Oakshire Road—9
 Levy, Louis T., 1844 W. North Avenue—17
 Leach, C. Edward, 14 E. Eager Street—2
 Lebo, Lester, Medical Arts Bldg.—1
 Lederman, Edward I., 4504 Maine Avenue—7
 LeDoux, Clarence W., 3023 Eastern Avenue—24
 Leftwich, Charles I., 807 Radnor Avenue—12
 Legge, John E., 700 Cathedral Street—1

Legge, Kenneth Dartmouth, Medical Arts Bldg.—1
 Legum, Samuel, 1261 E. North Avenue—2
 Leitz, Thomas Frederick, Temple Garden Apts.—17
 Lenhard, Raymond E., 1107 St. Paul Street—2
 Lerner, Philip F., 1111 St. Paul Street—2
 Leslie, Franklin Earl, 623 Wilton Road—Towson 4
 Levi, J. Elliott, 1020 St. Paul Street —2
 Levickas, Herbert J., 5305 E. Drive —27
 Levin, H. Edmund, 3400 Hilton Road—15
 Levin, Manuel, 4818 Reisterstown Road—15
 Levin, Milton, 2224 Eutaw Place—17
 Levin, Morris Benjamin, 218 E. University Parkway—18
 Levine, Stuart Charles, 809 Cathedral Street—1
 Levy, Charles S., Medical Arts Bldg. —1
 Levy, Isadore I., 3530 Hilton Street —15
 Levy, Kurt, 3103 N. Charles Street —18
 Lewis, J. L., Jr., 5907 Wakehurst Way —12
 Lewison, Edward F., 1020 St. Paul Street—2
 Liberles, Lucille, 1739 Eutaw Place —17
 Liberto, Joseph R., 1011 N. Charles Street—1
 Lieberman, Alfred T., 29 E. Mt. Vernon Place—2
 Lilenthal, Joseph L., Jr., Johns Hopkins Hospital—5
 Lilienfeld, Samuel, 714 E. Preston Street—2
 Lillich, B. A., 3615 Falls Road—11
 Linas, Sydney, 2240 Eutaw Place—17
 Linden, Harry, 14 S. Broadway—31
 Li Pira, Joseph Francis, Box 1145 McClellan, AFB, McClellan, Cal.
 Lippy, George Dewey, 206 Kimble Road—18
 Lisansky, E. Theodore, 3210 Liberty Heights Avenue—15
 Little, Luther E., 10 W. Madison Street—1

* Deceased.

Livingston, Samuel, 1039 St. Paul Street—2
 Lloyd, Oliver S., 701 Cathedral Street—1
 Loch, Walter Edward Eric, 1039 N. Calvert Street—2
 *Locher, R. W., 31 E. North Avenue —2
 Lockard, James Douglas, 802 Cathedral Street—1
 Loewald, Hans W., 11 E. Chase Street—2
 Loker, F. Ford, 1120 St. Paul Street —2
 Long, John Herman, 11 E. Chase Street—2
 Long, Wilmer Newton, Jr., 11 E. Chase Street—2
 Longcope, Warfield T., Cornhill Farms, Lee, Mass.
 *Looper, Edward A., 104 W. Madison Street—1
 Love, William S., Jr., 1214 N. Calvert Street—2
 Lovitt, William V., Jr., 3501 St. Paul Street, Apt. 423—18
 Lowenbach, Hans, Duke University Hospital, Box 3518, Durham, N. C.
 Lowitz, Irving Robert, 3815 Oxford Avenue—15
 Lowman, Milton E., 4843 Park Heights Avenue—15
 Lubin, Paul, 320 Patapsco Avenue —25
 Luetscher, John Arthur, 12 E. Eager Street—2
 Lumpkin, Morgan LeRoy, 914 N. Charles Street—1
 Lumpkin, William R., 307 E. 33rd Street—18
 Lupo, Deonis M., 11 E. Chase Street —2
 Lynn, William Dawson, 1547 Northgate Road—18
 McAllister, William B., New Haven Hospital, New Haven, Conn.
 McCarthy, Charlotte, 618 Medical Arts Bldg.—1
 McCarty, Harry D., 37 W. Preston Street—1
 McCauley, A. Franklin, 2843 St. Paul Street—18
 McClafferty, William J., 315 St. Dunstans Road—12
 McClary, Allen R., 411 Alabama Road—Towson, 4

*McConachie, Alexander Douglas, 805 N. Charles Street—1
 McCormack, Lloyd L., 111 E. Preston Street—2
 McCosh, James N., 312 Dixie Drive —4
 McDonald, George, 844 N. Carey Street—17
 McDonnell, Edmond J., 4 E. Madison Street—2
 McElwain, Howard B., 31 E. North Avenue—2
 McFadden, Robert B., 19 Wyndcrest Avenue—28
 McGrady, Charles Winfred, Jr., University Hospital—1
 McGrady, Kathleen Reilly, University Hospital—1
 McGrath, Denis Joseph, 1 E. Randall Street—30
 McKenzie, W. Raymond, Medical Arts Bldg.—1
 McKusick, Victor A., Johns Hopkins Hospital—5
 McLanahan, Samuel, 108 E. 33rd Street—18
 MacLaughlin, D. C., 4508 Edmondson Village—29
 McLaughlin, Francis Joseph, 2 E. Read Street—2
 McLaughlin, John H., 3700 Loch Raven Blvd.—18
 MacLean, Angus Lloyd, 1201 N. Calvert Street—2
 McLean, George, Medical Arts Bldg. —1
 McLean, Ross L., 3900 Loch Raven Blvd.—18
 MacMinn, Charles C., Jr., 2911 E. Baltimore Street—24
 McNally, Hugh B., 1008 Winding Way—10
 Mace, Albert J., The Terraces, Mt. Washington—9
 Machen, John W., 6331 Belair Road —6
 Macht, Allan Harris, 3818½ Belle Avenue—15
 Macht, David I., 3420 Auchentoroly Terrace—17
 Mackenzie, Thayer M., Johns Hopkins Hosp.—5
 Mackowiak, Stephen C., 6714 Holabird Avenue—22
 Macks, I. M., 3506 Liberty Heights Avenue—15

Maginnis, Helen Irene, 719 Medical Arts Bldg.—1
 Magladerry, John William, Johns Hopkins Hospital—5
 Mandy, Arthur Jennings, Medical Arts Bldg.—1
 Mandy, Theodore E., Medical Arts Bldg.—1
 Manieri, Frank V., 3503 Crossland Avenue—13
 Mansdorfer, G. B., 2937 N. Charles Street—18
 Mansfield, William K., 44 W. Biddle Street—1
 Marburg, Rudolf, 2 E. Read Street—2
 Marek, Charles B., 801 N. Luzerne Avenue—5
 Marino, Frank C., 1129 St. Paul Street—2
 Mark, Donald D., 3234 Lake Avenue —13
 Markley, Raymond Law, Hospital for the Women of Md.—17
 Markowitz, Milton, 8 E. Eager Street —2
 Marr, Ernest G., 516 Cathedral Street—1
 Marr, William G., 10 E. Chase St. —2
 Marriott, Henry J. L., 5113 Brookgreen Road—29
 Marshall, Curtis, Johns Hopkins Hospital—5
 Marston, James G., 516 Cathedral Street—1
 Martin, Lay, 1201 N. Calvert Street —2
 Marvel, N. Clyde, Maryland Casualty Co.—3
 Maser, Louis Robert, 4335 Park Heights Avenue—15
 Maseritz, I. H., Temple Garden Apartments, Cloverdale Road and Madison Avenue—17
 Mason, Robert E., 9 E. Chase Street —2
 Massenburg, George Yellott, Apt. 270, 701 Hanlin Court, Ware Avenue, Wherry Housing Project, Scott Air Force Base, Ill.
 Matchar, Joseph Charles, 3623 Liberty Heights Avenue—15
 Maxson, Charles Walter, 817 St. Paul Street—2
 May, Robert E., 1200 Woodbourne Avenue—12

* Deceased.

DIRECTORY

May, William T., 2034 Eutaw Place—17
 Mayer, Erwin E., The Esplanade—17
 Mays, Howard Brooks, 715 N. Charles Street—1
 Mech, Karl F., 11 E. Chase Street—2
 Menning, Joseph H., 101 W. Read Street—1
 Meranski, Israel P., 3354 Dolfield Avenue—15
 Merkel, Walter C., Union Memorial Hospital—18
 Meyer, Eugene, III, 809 W. Lake Avenue—10
 Michel, William, 1015 Poplar Grove Street—16
 Michelson, Elliott, 1801 Eutaw Place—17
 * Michelson, R. A., 2230 Eutaw Place—17
 Milan, Albert Richard, 320 E. 33rd Street—18
 Milan, Edward F., 682 Washington Blvd.—30
 Millea, William Lawrence, 3101 St. Paul Street—18
 Miller, Benjamin, 2030 Wilkins Avenue—23
 Miller, Harry A., 2452 Eutaw Place—17
 Miller, Isaac, 1228 S. Charles Street—30
 Miller, Jacob M., 1613 E Baltimore Street—3
 Miller, James Patton, 804 Cathedral Street—1
 Miller, John Ernest, 719 Morningside Drive—Towson 4
 Miller, Joseph G., 107 W. Saratoga Street—1
 Miller, Lowell Stephen, Johns Hopkins Hospital—5
 Miller, Meyer, 4832 Park Heights Avenue—15
 Miller, Mitchell H., 311 Broxton Road—12
 Miller, Stanley, 914 N. Charles Street—1
 Milnor, William R., Malvern Avenue, Ruxton 4, Md.
 Mintzer, Donald W., 1922 E. Belvedere Avenue—14
 Mirick, George S., Johns Hopkins Hospital—5
 Mitchell, George W., 11 E. Chase Street—2
 Mitchell, Robert Bruce, Jr., 704 Cathedral Street—1
 Mitchener, James Samuel, Jr., Church Home and Hospital—31
 Mohr, Dwight H., 301 S. Ellwood Avenue—24
 *Moncure, Turner A., 100 St. Paul Street—2
 Monninger, Arthur C., 800 E. North Avenue—2
 Moore, Alfred C., 2122 Broening Highway—24
 Moore, James I., 11 E. Chase Street—2
 Moore, Joseph Earle, Medical Arts Bldg.—1
 Moore, Kirk, The Latrobe—2
 Moore, Marcus W., Sr., 1371 N. Carey Street—17
 Moores, J. Duer, 3105 Belair Road—13
 Morgan, Russell H., Johns Hopkins Hospital—5
 Morgan, Zachariah R., 10 E. Eager Street—2
 Morris, Frank Kailer, 3913 Juniper Road—18
 Morris, John David, 14 E. Eager Street—2
 Morrison, John Huff, 6 E. Read Street—2
 Morrison, Samuel, 11 E. Chase Street—2
 Morrison, T. H., 11 E. Chase Street—2
 Morrow, Andrew G., Leeds General Infirmary, Leeds, England
 Mortimer, Egbert Laird, Jr., 207 Paddington Road—12
 Mosberg, William Henry, Jr., 518 E. 39th Street—18
 Moses, Benjamin B., 448 N. Luzerne Avenue—24
 Moses, Bessie L., 519 Medical Arts Bldg.—1
 Mostwill, Ralph, 1805 Eutaw Place—17
 Muller, S. Edwin, 2 W. Read Street—1
 Mulligan, E. James, 5600 Harford Road—14
 Muncie, Wendell S., 11 E. Chase Street—2
 Murgatroyd, George W., Jr., 1114 St. Paul Street—2
 Murray, John Gardner, Jr., 3408 St. Paul Street—18
 Muse, Joseph E., Jr., 5 West 29th Street—18
 Muse, William T., 5 W. 29th Street—18
 Myerowitz, Joseph Robert, 5145 Park Heights Avenue—15
 Myers, John A., 104 E. Biddle Street—2
 Myers, Joseph Carl, 1401 E. Cold Spring Lane—18
 Myers, Myron Joseph, The Latrobe Apartments—2
 Myers, Philip, 2425 Eutaw Place—17
 Nachlas, I. William, 1109 N. Calvert Street—2
 Nachlas, N. Edward, Rochester Court Apartments, Brooks Lane—17
 Nance, Fuller, 522 Rossiter Avenue—12
 Naquin, Howard A., Johns Hopkins Hospital—5
 Needle, Nathan E., 2314 W. North Avenue—16
 Neill, William, Jr., 901 Cathedral Street—1
 Nelson, Alfred Turner, 4526 Marble Hall Road—12
 Nelson, James Wharton, Earl Court Apts., Preston & St. Paul Streets—2
 Nelson, Russell A., Johns Hopkins Hospital—5
 Nesbitt, John A., Jr., 1118 St. Paul Street—2
 Neubauer, Imre, 936 Patapsco Avenue—25
 Ney, Grover C., 2401 Linden Avenue—17
 Niblett, Walter S., 2220 Garrison Blvd.—16
 Nichols, Firmadge K., 4711 Roland Avenue—10
 Nitsch, Norbert C., 2151 Wilkins Avenue—23
 Nolan, James, 5804 Edmondson Avenue—28
 Norton, John Charles, Jr., 1933 W. Baltimore Street—23
 Norwood, V. Hyatt, Church Home & Hospital—31
 Novak, Edmund Rogers, 26 E. Preston Street—2
 Novak, Eduard, Medical Arts Bldg.—1
 Novak, Emil, 26 E. Preston Street—2
 Nowak, Sigmund R., 408 S. Patterson Park Avenue—31

* Deceased.

O'Connor, John A., 11 E. Chase Street—2

O'Donovan, Charles, Jr., 3111 N. Charles Street—18

Ogden, Frank N., 2701 N. Calvert Street—18

O'Hare, James Stewart, 6 E. 30th Street—18

O'Rourke, Thomas R., 104 W. Madison Street—1

Osborne, John C., 3122 Northern Parkway—14

Otenasek, Frank J., 6 E. Eager Street —2

Owen, Arthur John, 1200 E. Belvedere Avenue—13

Owen, John Keller, 104 W. Madison Street—1

Owens, Ella Uhler, 1512 East 36th Street—18

Owens, William C., 1512 East 36th Street—18

Owings, James C., 18 W. Franklin Street—1

Ozazewski, John Casimir, 1540 Oakridge Road—18

Pacienza, Frank A., Medical Arts Building—1

*Padgett, Paul, Veterans Administration Hospital, Fort Howard

Pair, James Mansfield, 400 N. Carrollton Avenue—23

Palese, John Michael, 11 E. Chase Street—2

Park, Edwards A., Pathological Building, Johns Hopkins Hospital—5

Park, William F., 52 Rowell Circle, Hancock Village, Havelock, N. C.

Parker, Robert T., 620 Wilton Road —Towson 4

Parrott, Frank Strong, 121 Orchard Street, Mt. Airy, N. C.

Parsons, John Warner, 11 E. Chase Street—2

Pass, I. Earl, 4001 Wilkins Avenue —29

Patt, Howard H., 803 Cathedral Street—1

Patton, Genieann Parker, 1726 Pin Oak Road—Towson 4

Patz, Arnall, 920 St. Paul Street—2

Paulson, Moses, 11 E. Chase Street—2

Peake, Clarence William, 4508 Harford Road—14

Pearce, William F., 2105 N. Charles Street—18

*Pearce, Wm. H., 2105 N. Charles Street—18

Peck, John Lyman, 5506 Lombardy Place—10

Peirce, E. Converse, 2nd, 4512 Marble Hall Road—12

Pembroke, Richard H., Jr., 1311 N. Calvert Street—2

Pendleton, George H., 1723 Druid Hill Avenue—17

Pessagno, Daniel J., Medical Arts Bldg.—1

Peters, H. Raymond, 1127 N. Calvert Street—2

Phelan, Patrick C., Jr., 239 Linden Avenue, Towson—4

Phelps, Winthrop Morgan, 3038 St. Paul Street—18

Phillips, Otto C., 2210 Erdman Avenue—13

Pierce, Leslie Harrall, 700 Cathedral Street—1

Pierpont, Ross Z., 111 W. Monument Street—1

Pierson, J. W., 1107 St. Paul Street—2

Pincoffs, Maurice C., University Hospital—1

Pines, Samuel R., The Latrobe Apartments—2

Pleasants, Jacob Hall, 201 Longwood Road, Roland Park—10

Pleet, Jerome, 7021 Alden Road—8

Polek, Melvin F., 4200 Sheldon Avenue—6

Polvogt, Leroy M., 1201 N Calvert Street—2

Porter, Harry P., 6473 Blenheim Road—12

Pound, John C., 4513 Old Frederick Road—29

Prager, Helmut, 1308 Eutaw Place —17

Pratt, Daniel Wells, Johns Hopkins Hospital—5

Pratt, Louis J., Jr., 8402 Greenway, Towson—4

Primakoff, H. William, Emersonian Apartments—17

Proctor, Donald F., Johns Hopkins Hospital—5

Proctor, Samuel Edward, 104 W. Madison Street—1

Pugh, Albert Ellsworth, Veterans Administration, Fort Howard, Md.

Putterman, Morris N., 2324 Reisters-town Road—17

Queen, J. Emmett, 4418 Norwood Road—18

Racusin, Nathan, 206 S. Gilmor Street—23

Radman, H. Melvin, Esplanade Apts., Eutaw Place & Brooks Lane—17

Raffel, William, 803 Cathedral Street —1

Ramsey, James H., 5711 Mineral Avenue, Halethorpe—27, Md.

Ramundo, Michael R., 89 Avondale Avenue, Clifton, N. J.

Randolph, M. Elliott, 11 E. Chase Street—2

Rangle, Raymond V., 642 Washington Boulevard—30

Raskin, Moses, 817 St. Paul Street —2

Rathbun, Howard K., Carroll Manor Road, Baldwin, Md.

Ratliff, Cliff, Jr., 4605 Edmondson Avenue—29

Reckling, Ralph Weeden, 520 N. Fulton Avenue—17

Reese, Fred M., 330 N. Charles Street —1

Reifschneider, Charles A., 104 W. Madison Street—1

Reifschneider, Herbert E., 104 W. Madison Street—1

Reiter, Robert A., 3408 Windsor Avenue—16

Renner, William F., 11 West 29th Street—18

Revell, Samuel T. R., Jr., 11 East Chase Street—2

Rich, Arnold R., Johns Hopkins Hospital—5

Rich, Benjamin S., Medical Arts Bldg.—1

Richards, Esther Loring, 41 W. Preston Street—1

Richardson, Edward H., 9 E. Chase Street—2

Richardson, Edward H., Jr., 9 E. Chase Street—2

Richardson, Horace K., 11 E. Chase Street—2

Richter, Christian F., 11 W. Biddle Street—1

Richter, Conrad Louis, 2237 Lake Avenue—13

Ridgely, Irwin O., 201 W. Madison Street—1

Rienhoff, William Francis, Jr., 1201 N. Calvert Street—2

* Deceased.

DIRECTORY

*Ries, A. Ferdinand, 302 Northway, Guilford—18
 Rigler, Richard R., 1017 E. Baltimore Street—2
 Riley, Eugene John, 2128 N. Calvert Street—2
 Riley, Richard Lord, 1901 Dixon Road—9
 Rinehart, Arthur M., 4823 Keswick Road—10
 Rinn, William Alexander, Medical Arts Building—1
 Rizika, Stuart D., 3411 Rosedale Road—15
 Roach, Thomas Edward, 514 Drury Lane—29
 Robbins, Martin A., 1801 Eutaw Place—17
 Roberts, David P., 11 E. Chase Street —2
 Robertson, J. Clagett, 117 S. Broadway—31
 Robinson, Aaron, 1817 Eutaw Place —17
 Robinson, Daniel R., V. A. Hospital, Ft. Howard—19
 Robinson, Harry M., 106 E. Chase Street—2
 Robinson, Harry M., Jr., 1024 N. Calvert Street—2
 Robinson, Raymond C. V., 11 Murray Hill Circle—12
 Robnett, Dudley Anderson, Jr., Medical Group, Palm Beach International Airport, West Palm Beach, Florida
 Rochberg, Samuel, 2202 W. Rogers Avenue—15
 Rodgers, William A., 815 Eastern Avenue—21
 Roetting, Carl P., 1326 W. Lombard Street—23
 Rogers, Harry L., 101 E. Preston Street—2
 *Rohrer, Caleb W. G., 2814 Ailsa Avenue—14
 Roman, Paul, 1810 Eutaw Place—17
 Rombro, Marvin Jay, 913 E. Belvedere Avenue—12
 Rosen, Harold, 1101 N. Calvert Street —2
 Rosen, Israel, 2413 E. Monument Street—5
 Rosenfeld, Morris, 3103 Bonnie Road —8
 Rosenthal, Gilbert White, 1739 Eutaw Place—17

Rosenthal, Harry William, 1902 Greenmount Avenue—18
 Rosin, John D., 1010 St. Paul Street —2
 Rossberg, Clyde Arthur, 2436 Washington Boulevard—30
 Rothholz, Alma S., Apt. 1-C, 822 Belgian Avenue—18
 Rowland, James M. H., 1118 St. Paul Street—2
 Rowland, William M., 5502 Huntley Square—10
 Rubin, Samuel, 1109 N. Calvert Street—2
 Rubin, Samuel, 203 Patapsco Avenue —25
 Rubin, Seymour W., 2703 W. Belvedere Avenue—15
 Rubinstein, Hyman S., 2349 Eutaw Place—17
 Rudman, Gilbert E., 2517 W. Baltimore Street—23
 Rudo, Alvin D., Latrobe Apartments —2
 Russell, Thomas Edgie, 3901 N. Charles Street—18
 Russo, James, 829 Kingston Road —12
 Rutledge, Benj. Huger, 18 E. Eager Street—2
 Ruzicka, F. Fred, 800 N. Patterson Park Avenue—5
 Rysanek, William J., 801 N. Kenwood Avenue—5
 Rysanek, William J., Jr., 1013 N. Calvert Street—2
 *Rytina, Anton George, 5003 St. Albans Way—12
 Sachs, Louis, Marlborough Apts.—17
 Sacks, Milton S., University Hospital —1
 Salik, Julian V., 3602 Clarinth Road —15
 Sanderson, John W., 1714 N. Caroline Street—13
 Sardo, Robert S., 303 Woodbourne Avenue—12
 Sarubin, Benjamin, 2128 W. North Avenue—17
 Sauber, Irvin, 3003 Garrison Boulevard—16
 Saunders, LeRoy W., 216 Goodale Road—12
 Savage, John Edward, Boyce Avenue, R.D. #8, Towson—4
 Sawyer, George J., Jr., 4808 Harford Road—14

Sawyer, William H., Jr., 4928 West Hills Road—29
 Saylor, Lloyd E., 3902 Greenmount Avenue—18
 Shorofsky, Isadore, 4212 Oakford Avenue—15
 Scagnetti, Albert, 1729 W. Lombard Street—23
 Scarborough, Clarence P., Jr., 104 W. Madison Street—1
 Schaefer, John F., 401 Random Road —29
 Schaefer, Otto, 920 St. Paul Street—2
 *Schaefer, Theodore A., 3610 Harford Road—18
 Schaffer, Alexander J., 1109 St. Paul Street—2
 Schapiro, Abraham, 2028 Eutaw Place—17
 Schapiro, William B., 2415 Eutaw Place—17
 Schenker, Paul, 2424 Eutaw Place—17
 Scher, Ernest, 1701 Eutaw Place—17
 Scher, Isadore, 2502 Eutaw Place—17
 Scherlis, Irving, 2501 Overbrook Road—8
 Scherlis, Leonard, 1214 N. Calvert Street—2
 Scherlis, Sidney, 1214 N. Calvert Street—2
 Scheurich, John A., 1337 S. Charles Street—30
 Scheye, Henry W., 3921 Edmondson Avenue—29
 Schiff, Hyman, 4023 Fallstaff Road —15
 Schimek, Robert A., Johns Hopkins Hospital—5
 Schimunek, Emanuel, 842 S. East Avenue—24
 Schlesinger, George Gerard, 16 E. Biddle Street—2
 Schmitz, William J., 118 Midhurst Road—12
 Schneidmuhl, Abraham M., 3340 Dolfeld Avenue—15
 Schnitzer, Eugene, 3904 S. Hanover Street—25
 Schochet, George, 1218 N. Calvert Street—2
 Schoenrich, Herbert, Calvert & Preston Streets—2
 Scholz, Roy O., 11 E. Chase Street—2
 Schonfeld, Paul, 2301 Annapolis Road —30
 Schreiber, M. B., 3506 Ellamont Road —15

* Deceased.

Schuman, William, 1716 Eutaw Place —17
 Schwartz, Daniel J., 2320 Eutaw Place—17
 Schwartz, Theodore A., 834 Park Avenue—1
 Schwentker, Francis F., 209 Tunbridge Road—12
 Scott, Eleanor, 1014 St. Paul Street —2
 Scott, John M., 8 Longwood Road —10
 Scott, William Wallace, Rider Hill Road, Ruxton—4
 Seegar, J. King B. E., Jr., 3714 Winterbourne Road—16
 Seidel, Henry Murray, 3119 Bancroft Road—15
 Seidel, Herman, 2404 Eutaw Place —17
 Seliger, Robert V., 2030 Park Avenue —17
 Serra, Lawrence M., 11 E. Chase Street—2
 Settle, William Booth, 126 Homeland Avenue—12
 Shackelford, Richard T., 18 E. Eager Street—2
 Shamer, Maurice E., 3300 W. North Avenue—16
 Shanahan, Daniel S., 1945 W. Baltimore Street—23
 Shannon, George E., 100 St. Johns Road—10
 Shapiro, Albert, 1109 N. Calvert Street—2
 Sharfatz, George, 5106 Park Heights Avenue—15
 Shaw, Charles E., 5801 Loch Raven Boulevard—12
 Sheehan, Joseph Chester, 11 E. Chase Street—2
 Shell, James H., Jr., Medical Arts Building—1
 Sheppard, Henry, Jr., 922 W. University Parkway—10
 Sheppard, Robert C., Medical Arts Bldg.—1
 Shepperd, J. Douglass, 604 N. Fulton Avenue—17
 Sherman, Jerome, 2502 Eutaw Place —17
 Sherman, Solomon, 2424 Eutaw Place —17
 Shernan, Harry Donald, 2326 Eutaw Place—17
 Sherry, Milton, 11 E. Chase Street—2
 Shervington, E. Walter, U. S. Army Hospital, Ft. Bragg, N. C.
 Shiling, Moses Samuel, 2426 Eutaw Place—17
 Shimaneck, Lawrence J., 1 South Wind Court, Ruxton—4
 Shipley, Arthur Marriott, 507 Edgevale Road, Roland Park—10
 Shipley, Edgar Roderick, Medical Arts Building—1
 Shpritz, Nathan H., 3100 Garrison Boulevard—16
 Shochat, Albert J., 4111 Liberty Heights Avenue—7
 Shub, Maurice I., 135 Berteau Avenue, Elmhurst, Illinois
 Shulman, Leon M., 6715 Park Heights Avenue—15
 Siegel, Isadore A., 2309 Eutaw Place —17
 Silberman, David, 1411 Eutaw Place —17
 Silver, A. A., Temple Garden Apartments—17
 Sima, Charles Edward, 2074 E. Belvedere Avenue—14
 Sindler, Joseph, 929 Brooks Lane—17
 Singewald, Albert G., 1613 E. North Avenue—13
 Singewald, Martin Louis, 11 E. Chase Street—2
 Sinsky, H. L., 310 E. North Avenue —2
 Sisco, P. S. Bourdeau, 2500 Garrison Blvd.—16
 Siscovich, Milton, 1429 W. Fayette Street—23
 Siver, Robert H., 3105 N. Charles Street—18
 Siwinski, Arthur George, 15 E. Biddle Street—1
 Siwinski, Thaddeus Charles, 807 Wellington Road—12
 Skillman, Wilbur F., 6 E. Biddle Street—2
 Skloven, Joseph, 7122 Harford Road —14
 Slack, Harry R., Jr., 1100 N. Charles Street—1
 Sloan, Robert D., Johns Hopkins Hospital—5
 Stockbower, Edith Treptow, 901 Cathedral Street—1
 Small, Mary Louise, 16 W. Read Street—1
 Smink, Claude, St. Michaels, Md.
 Smith, D. C. Wharton, 2nd, 2 Wyndhurst Avenue—10
 Smith, E. P., 920 St. Paul Street—2
 Smith, E. P., Jr., 20 Fernald Drive, Suite 11, Cambridge 38, Mass.
 Smith, Frank R., Jr., 623 W. University Pkwy.—10
 Smith, Frederick Bruce, 11 E. Chase Street—2
 Smith, Harry Bryant, 1201 Oxford Road—12
 Smith, Howard Chandler, Medical Arts Bldg.—1
 Smith, John Prinz, 1100 E. Belvedere Avenue—12
 Smith, Olive Cushing, 20 W. Madison Street—1
 Smith, Ruby A., 513 N. Charles Street—1
 Smith, Sol, 2426 Eutaw Place—17
 Smith, William Henry, 3429 Chestnut Avenue—11
 Smith, Winford H., 100 W. University Parkway—10
 Snyder, Jerome, 11 E. Chase Street —2
 Snyder, Nathan, 1200 St. Paul Street —2
 Snyder, Samuel, 1634 E. Baltimore Street—31
 Sodaro, Manuel, 826 E. Belvedere Avenue—12
 Sollod, Aaron C., 707 E. Fort Avenue —30
 Solomon, Milton L., 129 S. Broadway —31
 Sonheimer, A. Adler, Esplanade Apts.—17
 Spear, Irving J., 928 N. Charles Street —1
 Speed, William G., III, 11 E. Chase Street—2
 Spelsberg, Walter K., 903 Pemberton Road—12
 Spence, John Morland, Jr., 2903 N. Charles Street—18
 Spier, Andrew Allan, 4408 Loch Raven Boulevard—18
 Spitzberg, Randolph Howard, 5010 Denmore Avenue—15
 Sprunt, Katherine, 4407 Norwood Road—18
 Sprunt, T. P., 1035 N. Calvert Street —2
 Spurrier, O. Walter, 3603 Edmondson Avenue—29
 Stacy, Theodore E., Jr., 319 St. Dunstans Road—12
 Stafford, Edward S., 11 E. Chase Street—2
 Stebbins, Ernest L., 615 N. Wolfe Street—5
 Stedem, Anthony F. A., Jr., V. A. Hospital, Perry Point, Md.

DIRECTORY

Steinbach, Stanley R., 3334 Dolfield Avenue—15
 Steinberg, Morris William, 410 N. Hilton Street—29
 Steinberg, Murray, 3306 Springdale Avenue—16
 Steiner, Albert, 1308 Eutaw Place—17
 Stevens, Leland B., 3400 Erdman Avenue—13
 *Stevens, Thomas F. A., 2878 Harford Road—18
 Stewart, Charles Wilbur, 6 E. Read Street—2
 Stewart, Edwin Henry, Jr., Medical Arts Bldg.—1
 Stewart, George A., 3301 N. Charles Street—18
 Stewart, William Lewis, Baltimore City Hospitals—24
 Stickel, Frederick L., 111 Arbutus Avenue-Eden Terrace—28
 Stickney, Geo. L., The Latrobe—2
 Stiffer, Jean Rose, 3301 N. Charles Street—18
 Stiffer, William Curtis, Jr., 3301 N. Charles Street—18
 Stiles, Cleo D., Jr., Medical Arts Bldg.—1
 Stinson, Edward, Jr., 18 E. Eager Street—2
 Stone, Douglas H., 2921 St. Paul Street—18
 Stone, Harvey Brinton, 18 W. Franklin Street—1
 Stout, Merrell L., Hospital for the Women of Maryland—17
 Styrt, Jerome, Dept. of Psychiatry, University of Maryland School of Medicine—1
 Suarez-Murias, Edward L., 11 E. Chase Street—2
 Sullivan, Maurice, 11 E. Chase Street —2
 Sullivan, Sullins G., 1129 St. Paul Street—2
 Sullivan, William Joseph, 11 E. Chase Street—2
 Summers, Henry G., 300 Church Street, Brooklyn
 Sunday, Stuart D., 201 E. 33rd Street —18
 Supik, William Joseph, 1127 St. Paul Street—2
 Suplee, J. Frank, III, 1014 St. Paul Street—2
 Sussman, Abraham Allen, 1109 N. Calvert Street—2

Sutley, Percy H., 411 Chestnut Avenue, Towson—4
 Swiss, Adam G., 6232 Belair Road—6
 Tanenbaum, Solomon, 1250 E. North Avenue—2
 Tankin, Louis H., 3717 Nortonia Road—16
 Tansey, John J., The Latrobe Apartments—2
 Tappan, Benjamin, 1201 N. Calvert Street—2
 Taussig, Helen B., Johns Hopkins Hospital—5
 Taylor, Robert B., 700 Cathedral Street—1
 Teagarden, Ersie V., 603 Club Road —10
 Teitelbaum, Harry Allen, 1801 Eutaw Place—17
 Te Linde, Richard Wesley, The Johns Hopkins Hospital—5
 Tenner, David, 3505 Ellamont Road —15
 Thomas, Anthony J., 4600 York Road —12
 Thomas, Caroline Bedell, 700 N. Wolfe Street—5
 Thomas, Clyde Dana, Jr., 1412 Regester Avenue—12
 Thomas, Henry M., 314 Overhill Road—10
 Thompson, Raymond Kieff, 11 E. Chase Street—2
 Tiemeyer, Arthur Charles, 101 W. Monument Street—1
 Tilghman, R. Carmichael, 6 E. Eager Street—2
 Tillman, Richard Nelson, 3035 St. Paul Street—18
 Tinker, Francis X. P., 1500 Manning Road—23
 Todd, Homer U., 2108 St. Paul Street —18
 Toll, Karel v.S., 3614 Eastwood Drive—6
 Tommasello, Charles, Jr., 910 W. Lombard Street—23
 Tompakov, Samuel Victor, 3600 Park Heights Avenue—15
 Tonolla, E. Howard, The Latrobe Apartments—2
 Touhey, T. Jos., 441 S. Ellwood Avenue—24
 Toulson, W. Houston, Medical Arts Bldg.—1
 Tower, Sarah Sheldon, 11 E. Chase Street—2

Townshend, Wilfred H., Jr., 6 St. Georges Road—10
 Traband, John H., Jr., 1219 Poplar Grove Street—16
 Traband, Millard T., Jr., 3400 Woodbine Avenue—7
 Tramer, Arnold, Baltimore City Hospitals—24
 Traugott, Karl, 1912 E. Belvedere Avenue—14
 Traynor, Francis W., 901 St. Paul Street—2
 Trescher, John H., 1035 N. Calvert Street—2
 Trimble, I. Ridgeway, 8 W. Madison Street—1
 Truitt, Ralph P., 1118 St. Paul Street —2
 Tuminello, Salvatore Anthony, Medical Arts Bldg.—1
 Tunney, Robert B., 115 E. Eager Street—2
 Turner, Thomas B., 615 N. Wolfe Street—5
 Ullman, Alfred, 1712 Eutaw Place—17
 Ullrich, Henry Franz, 804 Cathedral Street—1
 Ullsperger, John F., Apt. E, 1641 Waverly Way—12
 Urlock, John P., 3700 Garrison Bldg. —15
 Van Lill, Stephen J., 205 N. Rolling Road—28
 Vanni, Frank L., 11 E. Chase Street —2
 Vest, Cecil W., 1014 St. Paul Street —2
 Vinup, Frederick H., 110 E. Lombard Street—2
 Vogel, Louis, Jr., 2601 E. Monument Street—5
 Vollmer, Frederick J., 311 E. Gittings Avenue—12
 Von Schulz, Augustine P., 4818 Edmondson Avenue—29
 Voshell, Allen Fiske, Medical Arts Bldg.—1
 Vozel Luther F., 3105 N. Charles Street—18
 Vyner, Harold L., 817 St. Paul Street —2
 Wack, Frederick V. D., 513 E. 39th Street—18
 Waghelstein, Julius M., 803 Cathedral Street—1
 Wagley, Philip Franklin, 9 E. Chase Street—2

* Deceased.

Wainwright, Charles W., 9 E. Chase Street—2

Walden, Emerson C., Sr., Provident Hospital—17

Walker, A. Earl, 601 N. Broadway—5

Walker, Wm. Wallace, Medical Arts Bldg.—1

Wall Lester Aubrey, Jr., 4407 Underwood Road—18

Wallenstein, Leonard, 848 W. 36th Street—11

*Wallenstein, Sydney, 2042 Eutaw Place—17

Waller, W. Kennedy, 512 Cathedral Street—1

Walsh, Frank Burton, 12 W. Read Street—1

Walton, Henry J., Medical Arts Bldg.—1

Ward, Arthur T., 116 Taplow Road —12

Ward, Grant E., 15 E. Biddle Street —2

Warner, Chas. Luther, 3312 Egerton Road—15

Warner, Howard H., 2604 Garrison Avenue—16

Warres, Herbert Leonard, 2337 Eutaw Place—17

Wasserman, Harry 1501 Eutaw Place —17

Waters, Charles A., 1100 N. Charles Street—1

Watson, George Smith, Walnut Avenue, Riderwood, Md.

Webster, Thomas Clyde, 4336 N. Charles St.—18

Weeks, William Earl, 5839 York Road —12

Wehner, Daniel George, Medical Arts Bldg.—1

Weinberg, Edwin David, Latrobe Apts.—2

Weinberg, Harold H., 1724 Eutaw Place—17

Weinberg, J. Arthur, Latrobe Apartments—2

Weinberg, M. A., 1724 Eutaw Place —17

Weinberg, Tobias, 3700 Kingwood Square—15

Weinberger, Richard, 912 Brooks Lane—17

Weinstock, Alexander A., 4603 Park Heights Avenue—15

*Weisman, Samuel, 4004 Liberty Heights Avenue—7

Weiss, Albert J., 4115 W. Rogers Avenue—15

Weitzman, Elliott L., 6018 Clover Road—15

Welch, Hugh J., 1123 St. Paul Street —2

Welcome, Henry C., 1131 Harlem Avenue—17

Welfeld, Alvan A., 1801 Eutaw Place —17

Wells, Geo. E., 4100 Edmondson Avenue—29

Wells, George Edward, Jr., 1000 Wildwood Parkway—29

Wells, Gibson Jackson, 3101 St. Paul Street—18

Wells, John Bernard, Jr., 6007 Sycamore Road—12

West, Arthur M., 2411 Mosher Street —16

Wexler, Jack, 2502 Eutaw Place—17

Wharton, Lawrence R., 1201 N. Calvert Street—2

Wharton, Lawrence R., Jr., 4504 Roland Avenue—10

Whedbee, James S., Jr., 18 E. Eager Street—2

White, James Edmond, 5214 Harford Road—14

*White, Thomas F., 3809 Greenmount Avenue—18

White, William Kelso, 3005 St. Paul Street—18

Whitehorn, John C., Johns Hopkins Hospital—5

Whitehouse, Samuel, 1720 Eutaw Place—17

Whitham, Lloyd B., 806 Cathedral Street—1

Whitridge, John, Jr., 2411 N. Charles Street—18

Whittle, Henry Lyman, 1229 N. Calvert Street—2

Wice, Louis Ervine, 920 St. Paul Street—2

Wich, Joseph Carlton, 1637 Stonewood Road—12

Wieciech, Michael J., 707 S. Ann Street—31

Wies, David, 1613 Waverly Way —12

Wilder, Earle M., 1719 Eutaw Place —17

Wilder, Milton J., 1719 Eutaw Place —17

Wilfson, Daniel, Jr., 5721 Park Heights Avenue—15

Wilgis, Herbert E., 2947 St. Paul Street—18

Wilkerson, Albert Russell, 1200 St. Paul Street—2

Wilkins, Lawson, 501 Edgevale Road —10

Wilkinson, William Emmet, Jr., 609 Cathedral Street—1

Will, David Reid, 3619 Lochearn Drive—7

Williams, H. Maceo, 201 N. Carey Street—23

Williams, Huntington, 620 W. Belvedere Avenue—10

Williamson, Charles Vernon, 201 Huron Road, Catonsville—28

Williamson, Edgar P., II, 201 Hilton Avenue—28

Willson, James Knox VanArdsale, 8211 Loch Raven Blvd.—4

Wilson, Harry E., 3 W. Biddle Street —1

Wilson, Harry Thomas, Jr., 1204 St. Paul Street—2

Wilson, Henry Beatty, U. S. Air Force Hospital, % P.M., Seattle, Washington

Wilson, Marion Evans, 803 W. Fremont Avenue—17

Wing, Wilson M., 615 N. Wolfe Street —5

Winkenwerder, Walter L., 1014 St. Paul Street—2

Wise, Walter Dent, 1120 St. Paul Street—2

Witt, John Philip, The Latrobe Apartments—2

Wolf, Frederick S., 150th Medical Group, APO 226, % P.M., San Francisco, Cal.

Wolf, Nathan, Box 367, Westmorland, Calif.

Wolfe, Samuel B., 1331 E. North Avenue—13

Wolff, Thomas Conrad, 11 E. Chase Street—2

Wolins, Allan Yale, 902 Patapsco Avenue—25

Wollenweber, Henry L., Medical Arts Bldg.—1

Wolman, Samuel, 2424 Eutaw Place —17

Woltereck, G. H., 10 E. Biddle Street —2

Wood, Austin H., Medical Arts Bldg.—1

* Deceased.

DIRECTORY

Woodland, Charles T., 861 Harlem Avenue—17

Woodruff, James Donald, 6 E. Eager Street—2

Woods, A. C., Wilmer Institute—5

Woods, Alan C., Jr., 11 E. Chase Street—2

Woodward, Theodore E., 1 Merrymount Road—10

Woody, W. H., 1403 Park Avenue—17

Worden, Frederic G., Sheppard and Enoch Pratt Hospital—4

Workman, Joseph B., 101 S. Belgrave Road—28

Worsley, Thomas L., Jr., 2900 Alabama Blvd.—18

*Wright, H. E., Medical Arts Bldg.—1

Wright, Robert B., Medical Arts Bldg.—1

Yaffe, Kennard, 3101 W. Baltimore Street—29

Yaffe, Stanley Norman, 3847 Forest Park Avenue—16

Yeager, George H., Medical Arts Bldg.—1

York, James Arthur, 1101 N. Calvert Street—2

Young, Asa Dougal, 20 E. Preston Street—2

Young, Betty May, 1214 Eutaw Place—17

Young, John David, Jr., 11 E. Chase Street—2

Young, Latimer G., 313 Tunbridge Road—12

Young, Leroy J., 130 W. Kingbridge Road, Bronx 68, N. Y.

Young, N. Louise, 1100 Druid Hill Avenue—17

Young, Ralph J., 1429 E. Monument Street—5

Zeligman, Israel, 1109 N. Calvert Street—2

Zepp, Herbert Elmo, 3400 Windsor Avenue—16

Zheutlin, Harold E. C., 1112 N. Calvert Street—2

Ziegler, Paul R., 3723 Edmondson Avenue—29

Zierler, Joseph N., 2318 Eutaw Place —17

Zierler, Kenneth L., 4004 Alto Road —16

Zimmerman, Loy M., 2858 Harford Road—18

Zinberg, Israel Saul, 2320 Eutaw Place—17

Zinn, Waitman F., Medical Arts Bldg. —1

Zupnik, Howard L., 427 Hopkins Road, Rodgers Forge—12

Associate Members

Abraham, Robert Auman, 1712 Aberdeen Road—4

Amberson, William R., Cockeysville Bair, Robert C., Apt. B., 1637 Waverly Way—12

Bell, William Harrison, Jr., Route 1, Box 78, New Bern, N. C.

Bernstein, Milton, 3302 Clarks Lane —15

Boyd, Joseph Alston, Dept. of Radiology, Duke Hospital, Durham N. C.

Brailey, Miriam E., Harriet Lane Hospital—5

Brambel, Charles E., 1504 Park Avenue—17

Buettner, Henry F., 5005 Edmondson Avenue—29

Chandler, Caroline A., 615 N. Wolfe Street—5

Clark, Fred Harlow, 3610 Gwynn Oak Avenue—7

Coles, John Howard, III, Baltimore City Hospitals—24

Cowley, R. Adams, 907 Belgian Avenue—18

Cullison, Robert M., 925 Shober Street, Winston-Salem, N. C.

Cunnick, Dorothy Gildea, Baltimore City Hospitals—24

Cunnick, Paul Carrollton, 422 Bonsal Street—24

Dana, George William, 6202 Sycamore Road—12

Davies, Edward Ross, 505 Radnor Avenue—12

Davis, Joseph Wilfred, 326 Radnor Road—12

Evans, John E., 1724 Reisterstown Road, Pikesville—8

Finberg, Lawrence, 4702 Wakefield Road—16

Fink, Arthur I., 724 W. North Avenue —17

Fishburn, Howard D., U. S. Marine Hospital—11

Fleck, Warren L., Veterans Admistr., Fort Howard

Frankel, Samuel S., 2022 W. Rogers Avenue—15

Freeman, Irving J., Veterans Admin- istration Hospital, Fort Howard, Md.

Gantt, William Horsley, Johns Hopkins Hospital—5

Gladue, J. Raymond, VA Hospital, Fort Howard—19

Goehrs, Homer R., USS Albany, % FPO, N. Y., N. Y.

Goldsmith, Harry, 3023 Hanlon Avenue—16

Gould, David M., 3403 Calloway Avenue—15

Graves, Joseph, Baltimore City Hospitals—24

Griffith, Paul Condon, Dept. Pathology, Johns Hopkins Hospital—5

Grifey, Walter P., U. S. Public Health Service Hospital—11

Hartman, Robert Carl, 1111 Brookmeade Drive, Nashville, Tenn.

Hauber, Frank D., Harford Memorial Hospital, Havre de Grace, Maryland

Hawkins, Charles W., U. S. A. Hospital, Fort Benning, Ga.

Hingson, Robert Andrew, 2889 N. Park Blvd., Cleveland Heights, Ohio

Jensen, Jacob Roed V. A. Hospital —18

Johnson, J. Paul, Jr., 812 E. Wilson Point Road—20

Kac, Arthur, 2405 Garrison Blvd. —16

Kalish, John T., 1731 Waverly Way —12

Kanner, Leo, 4510 Wentworth Road —7

Katz, Albert H., 3855 Forest Park Avenue—16

Katzenelbogen, Solomon, Suite 314 Eig Bldg., 8641 Colesville Rd., Silver Spring, Md.

Kernahan, William Tallmadge, Jr., 1938 Estes Avenue, Chicago 26, Ill.

Kirkpatrick, Wendell Charles, 1329 Broadway, Longview, Wash.

Knox, Lawrence Joseph, 418 S. Elliott Street, Olney, Ill.

Krantz, John C., Ellenham Road, Ruxton—4

Kuntz, David H., 3169 S. Sepulveda Blvd., Los Angeles 34, Calif.

Lansdowne, Milton, 6101 Stuart Avenue—9

Larkey, Sanford Vincent, Welch Medical Library—5

* Deceased.

Lattimore, Thomas, Baltimore City Hospitals—24
 Levi, Ernest, 3717 Park Heights Avenue—15
 Lippman, Eli Morton, U. S. Public Health Service Hospital—11
 McDonnell, Peter J., 1710 Freedom-way, North—13
 MacGibbon, John Butler, 954 Forest Street—2
 MacGowan, Birkhead, 11 E. Read Street—2
 Mandell, Sibyl, Division of Mental Hygiene, Baltimore City Health Department—3
 Marshall, Alice Berry C., 701 Cathedral Street—1
 Marshall, E. Kennerly, 701 Cathedral Street—1
 Martin, Clarence W., 1078 Cameron Road—12
 Nelson, Nels A., 4228 Kelway Road —18
 Notkin, Herbert, 4306 Liberty Heights Avenue—15
 Nussbaum, Kurt, 207 Clarendon Avenue, Pikesville—8
 Parelhoff, Merrill Elliott, 903 Lake Drive—17
 Polley, Virgil Britton, U. S. Public Health Service Hospital—11
 Reimann, Dexter Leroy, 2504 Creighton Avenue—14
 Richter, Curt Paul, The Johns kins Hospital—5
 Robinson, G. Canby, 100 W. University Parkway—10
 Roth, Merall, Galden Clinic and Memorial General Hospital, Elkins, W. Va.
 Rudin, Louis N., Veterans Administration Hospital, Fort Howard, Md.
 Rushmore, Stephen, 853 W. University Parkway—10
 Scott, Roger David, University Hospital—1
 Silverman, Charlotte, 705 Municipal Bldg—1
 Smith, George Williams, Johns Hopkins Hospital—5
 Spencer, Hugh R., University Hospital—1
 Spicknall, Charles, U. S. Public Health Service Hosp.—11
 Tasker, Arthur N., 317 Tuscany Road—10
 Terry, Luther L., U. S. Public Service Hospital—11
 Tidler, Harold S., VA Hospital, Lanham, Md.
 Trimble, Frances Hartley, 6006 Charlesmeade Road—12
 Tull, Myron G., 426 E. Lake Avenue —12
 Vande Grift, William B., 211 Ridge-mede Road 10
 Van Woert, Irving, Jr., M. S. Public Health Hospital, Box 108, Staten Island 4, N. Y.
 Wagner, John Alfred, 3419 Guilford Terrace—18
 Warner, C. Gardner, 7115 Bristol Road—12
 Wolson, Justin J., 4005 Cedardale Road—15
 Wylie, H. Boyd, 3119 N. Calvert Street—18

Baltimore County

Allison, Robert Herschel, 4 York Road, Towson 4, Md.
 Andrew, David Holmes, 5410 Willowmere Way, Baltimore 12, Md.
 Armacost, Joshua H., 6419 Windsor Mill Road, Woodlawn 7, Md.
 Bacon, A. M., 2810 Taylor Avenue, Parkville 14, Md.
 Baier, John C., 160 Stemmers Run Road, Baltimore 21, Md.
 Barstow, Mary V. M., Owings Mills, Md.
 Baumgardner, George M., 2552 Philadelphia Road, Baltimore 6, Md.
 Beck, Irving R., 901 Fuselage Avenue, Baltimore 20, Md.
 Beiter, Frederic V., Medical Arts Building, Baltimore 1, Md.
 Benson, Edward H., 1 W. Overlea Avenue, Baltimore 6, Md.
 Block, Nathan, 6200 Verdene Avenue, Baltimore 9, Md.
 Bociek, Stanley, 906 C Street, Sparrows Point, Baltimore 19, Md.
 Bridges, William A., Otho Ridge Road, Towson 4, Md.
 Brown, Lida Crockett, 528 Wyanoke Avenue, Baltimore 18, Md.
 Brown, Seymour M., 1091 N. Canyon Drive, Palm Springs, Calif.
 Burber, John D., Wyman Park Apartments, Baltimore 11, Md.
 Burns, Harold Hubert, 115 E. Eager Street, Baltimore 2, Md.
 Burns, John Howard, Jr., 59 Dundalk Avenue, Dundalk 22, Md.
 Burton, Charles H., 225 Northway, Baltimore 18, Md.

Butler, Harry G., Rosewood Training School, Owings Mills, Md.
 Cameron, Joseph J., 23 A-Oak Grove Drive, Baltimore 20, Md.
 Caples, D. Delmas, 6 Hanover Road, Reisterstown, Md.
 Carmine, Walter M., 88 Baltimore Avenue, Dundalk 22, Md.
 Carroll, Douglas Gordon, Jr., Brooklandville, Md.
 Chance, Lester, 11 E. Chase Street, Baltimore 2, Md.
 Cianos, James Nicholas, 1225 N. Calvert Street, Baltimore 2, Md.
 Clarke, Sydenham Rush, E. Morris Avenue, Lutherville, Md.
 Cooper, Donald D., 100 Burke Avenue, Towson 4, Md.
 Cushing, Jean George N., 2 E. Read St., Baltimore 2, Md.
 Cushing, Mary McK., 2 E. Read St., Baltimore 2, Md.
 Dalmau, Louis Z., 1413 Reisterstown Road, Pikesville 8, Md.
 Daugherty, A. Bradley, 1264 Francis Avenue, Halethorpe 27, Md.
 Daugherty, Rosalva T., 1264 Francis Avenue, Halethorpe 27, Md.
 Dausch, Michael J., 4636 Belair Road, Baltimore 6, Md.
 Davens, Edward, 2411 N. Charles Street, Baltimore 18, Md.
 Davis, George H., 404 Hollen Road, Baltimore 12, Md.
 Davis, Melvin B., 2910 Dunleer Road, Baltimore 22, Md.
 D'Elia, Laurence N., 121 Forest Avenue, Catonsville 28, Md.
 Depner, Rudolph, 114 Forest Drive, Catonsville 28, Md.
 Dunton, William R., 33 N. Symington Road, Catonsville 28, Md.
 Eichert, Arnold H., Crownsville State Hospital, Crownsville P. O., Md.
 Ensor, Charles B., 7201 York Road, Baltimore 12, Md.
 Estep, Paul R., 11770 Saratoga Avenue, Saratoga 1, Calif.
 Evans, Eugene R., 1 Liberty Parkway, Dundalk 22, Md.
 Farber, Dawson L., 914 D. Street, Sparrows Point 19, Md.
 Farber, Mary S., 914 D. Street, Sparrows Point 19, Md.
 Farber, Robert E., 914 D. Street, Sparrows Point 19, Md.
 Ferris, Charles, U.S.A.F., 2 Columbia Ave., Greenville, Pa.

DIRECTORY

Fleischman, Gertrude J., Spring Grove Hospital, Catonsville 28, Md.

Flick, Elliott C., 108 Edgewood Road, Towson 4, Md.

France, A. M., Parkton, Md.

Gallager, Wilmer K., 6209 Frederick Avenue, Catonsville 28, Md.

Gill, Hugh C. F., 3710 Buckingham Road, Baltimore 7, Md.

*Glantz, Frank A., 7 Wendover Road, Baltimore 18, Md.

Gonzalez, Caridad E., 2911 Emerald Avenue, Baltimore 14, Md.

Goodman, William, 1334 Sulphur Spring Road, Arbutus 27, Md.

Grau, Edward Gordon, 8523 Loch Raven Boulevard, Towson 4, Md.

*Green, John S., Jr., Towson 4, Md.

Greenberg, Harold A., Sheppard-Pratt Hospital, Towson 4, Md.

*Gundry, Alfred T., Athol, Md.

Halperin, Herman J., Bethlehem Steel Co., Sparrows Point 19, Md.

Hammett, Walter M., Baldwin, Md.

Harris, Earle Warfield, 202-A. Donnybrook Lane, Towson 4, Md.

Hening, R. M., 203 Ingleside Avenue, Baltimore 28, Md.

Hetherington, Leon, 12 Darnell Road, Ruxton 4, Md.

Hiller, Grace, 401 Brook Road, Towson 4, Md.

Hills, Arthur Gorman, 228 S. Quince Street, Philadelphia, Pa.

Hollander, Mark, 817 St. Paul Street, Baltimore 2, Md.

Howell, Clewell, 102 Alleghany Avenue, Towson 4, Md.

Howell, James G., 715 Frederick Avenue, Catonsville 28, Md.

Hudson, Clifford F., Fork, Md.

Hudson, Rollin C., 606 Baltimore Avenue, Towson 4, Md.

Hyde, Robert T., Baltimore Co. Health Dept., Towson 4, Md.

Johns, George A., State Hospital, Farmington, Missouri

Johns, Viola B., Rosewood Training School, Owings Mills, Md.

Johnson, S. Lloyd, 6348 Frederick Road, Baltimore 28, Md.

Johnson, Warren C., 4291 Sixth St., S.E., Washington 20, D. C.

Junk, Ivan DeKalb, Randallstown, Maryland

Kees, Walter T., Cockeysville, Md.

Kenworthy, Richard Albert, III, Locust Avenue, Ruxton 4, Md.

Kerr, Charles M., 6801 Belair Road, Baltimore 6, Md.

Kieffer, George S., 1010 Leeds Avenue, Baltimore 29, Md.

Kolodny, A. L., 6023 Highgate Drive, Baltimore 15, Md.

Landau, Walter S., 23 Hanover Road, Reisterstown, Md.

McClinton, Isabel H., Kingsville, Md.

*McCormick, G. Carville, Sparrows Point, Md.

McGrath, William Edward, 104 Smithwood Avenue, Catonsville 28, Md.

Magness, Stephen L., 908 Frederick Avenue, Catonsville 28, Md.

Martin, William E., Randallstown, Md.

Mason, James R., Box 516, Mt. Hays, Md.

Matthews, Mary, Balto. Co. Health Dept., Towson 4, Md.

Means, James Thomas, 514 C. Street, Sparrows Point 19, Md.

Medairy, George C., Rosewood Training School, Owings Mills, Md.

Merrill, George G., Baldwin, Md.

Miceli, Joseph, 422 Eastern Avenue, Baltimore 21, Md.

Miller, James Alton, Reisterstown Road & Walker Avenue, Pikesville 8, Md.

Morrison, W. Herbert, 3 Kinship Road, Dundalk 22, Md.

Mund, Maxwell H., 417½ Eastern Avenue, Essex 21, Md.

Murdock, Harry Merrill, Sheppard-Pratt Hospital, Towson 4, Md.

Nevy, Eugene Francis, 7001 Morningstar Road, Dundalk 22, Md.

Newcomer, William, Mt. Wilson, Md.

Newell, H. Whitman, 601 W. Lombard Street, Baltimore 1, Md.

Nichols, Elijah, 1402 Reisterstown Road, Pikesville 8, Md.

Nichols, Joseph Harold, 747 S. Avondale Road, Baltimore 22, Md.

Novey, Samuel, 11 E. Chase Street, Baltimore 2, Md.

O'Donnell, Charles Francis, 7301 York Road, Baltimore 4, Md.

Parr, William A., The Latrobe Apartments, Charles & Read Streets, Baltimore 2, Md.

Parson, Willard S., 1711 Selma Avenue, Halethorpe 27, Md.

Patton, John S., Sheppard & Enoch Pratt Hospital, Towson 4, Md.

Perkins, Clifton T., 646 Charles Street, Towson 4, Md.

Pierpont, Edwin L., 8027 Liberty Road, Baltimore 7, Md.

Post, Lawrence C., 6805 York Road, Baltimore 12, Md.

Pound, John Costello, 104 N. Rolling Road, Baltimore 28, Md.

Reese, J. Morris, Lutherville, Md.

Rehberger, John M., 10th Field Hospital APO 800 % P.M., New York, N. Y.

Rier, Charles H., Dunkirk and York Roads, Anneslie 12, Md.

Richards, C. Victor, 321 Dunkirk Road, Baltimore 12, Md.

Riley, Robert H., 100 N. Beechwood Avenue, Baltimore 28, Md.

Roberts, Dean W., 811 Trafalgar Road, Towson 4, Md.

Roop, Donald, 3810 Oak Avenue, Baltimore 7, Md.

Royer, Earl L., 01724810 Mash 8076-AV, APO 301 % P.M., San Francisco, Calif.

Royse, Paul H., 718 Cliveden Road, Pikesville 8, Md.

Runkel, John G., 29 Prospect Avenue, Baltimore 28, Md.

Saffell, James Glenn, 64 Main Street, Reisterstown, Md.

Sanner, J. Everett, 2032 Park Avenue, Baltimore 17, Md.

Sargent, George F., Aigburth Road, Towson 4, Md.

Sauer, Elmer, Mt. Wilson, Md.

Scalia, Samuel, 717 Howard Road, Baltimore 8, Md.

Seabold, William Merven, 5402 Edmondson Avenue, Carroll Station, Baltimore 29, Md.

Sedlack, Joseph Arthur, 200 W. Pennsylvania Avenue, Towson 4, Md.

Shanahan, Eugene R., 413 Eastern Avenue, Essex 21, Md.

Shear, Joseph, 805 Fuselage Avenue, Baltimore 20, Md.

Sherrill, Elizabeth B., Cockeysville, Md.

Siegel, Benjamin I., 15 Greenwood Road, Pikesville, Md.

* Deceased.

Smink, A. C., 701 W. Joppa Road, Towson 4, Md.
 Sollod, Bernard Walter, 8 Liberty Parkway, Dundalk, 22, Md.
 Somerville, Donald L., 24 Pennsylvania Avenue, Towson 4, Md.
 Spragins, Melchiah, 102 Alleghany Avenue, Towson 4, Md.
 Strobel, Martin, 59 Hanover Road, Reisterstown, Md.
 Sugarman, Maxwell, Timbergrove Road, Owings Mills, Md.
 Thomas, Joseph Henry, 8134-A, Bullneck Road, Dundalk 22, Md.
 Thomas, Ramsay B., 4207 Frederick Avenue, Baltimore 29, Md.
 Tollin, Louis M., 6908 North Point Road, Sparrows Point 19, Md.
 Torrey, Eugene W., Granite, Md.
 Turk, Isadore, Spring Grove State Hospital, Catonsville 28, Md.
 Urban, George Edward, 803 Frederick Road, Catonsville 28, Md.
 Wade, William C., 140 Oak Avenue, Dundalk 22, Md.
 Ward, Charles, Rosewood Hospital, Owings Mills, Md.
 Warthen, William H. F., 611 Hillen Road, Towson 4, Md.
 Wheeler, H. Lawrence, 9 Paradise Avenue, Catonsville 28, Md.
 Wheeler, Thomas E., Liberty & Cliftmar Roads, Randallstown, Md.
 Whitehead, Hugh G., Jr., 1201 N. Calvert Street, Baltimore 2, Md.
 Wilkinson, A. L., St. Michaels, Md.
 Williams, Charles Herman, 1632 Reisterstown Road, Pikesville 8, Md.
 Williams, Palmer F. C., 1725 Reisters-town Road, Pikesville 8, Md.
 Windsor, Roger Gilbert, 520 D. Street, Sparrows Point 19, Md.
 Zalis, Daniel, 1115 N. Calvert Street, Baltimore 2, Md.

Calvert County

Coster, Earl S., Solomons, Md.
 de Villarreal, Roberto, Prince Frederick, Md.
 Jett, Page C., Prince Frederick, Md.
 Tobler-Lennhoff, Alice Berg, Calvert County Health Department, Prince Frederick, Md.
 Ward, Hugh W., Owings, Md.

* Deceased.

Weems, George Jones, Huntingtown, Md.

Caroline County

Anderson, F. M., Federalsburg, Md.
 George, D. O., Denton, Md.
 Knotts, E. Paul, Denton, Md.
 Lennon, W. E., Federalsburg, Md.
 Plummer, Harold B., Preston, Md.
 Riley, Edwin G., Denton, Md.
 Silver, H. Fletcher, Goldsboro, Md.
 Stonesifer, Charles H., Greensboro, Md.
 White, George S., Ridgely, Md.
 Winnacott, Charles H., Ridgely, Md.
 *Wright, James F., Denton, Md.
 Wright, Robert, Greensboro, Md.

Carroll County

Bare, S. Luther, Westminster, Md.
 Benner, Chandos M., Taneytown, Md.
 Beyer, M. Virginia, Sykesville, Md.
 Billingslea, Charles Levine, Westminster, Md.
 Bush, Edgar Murray, Hampstead, Md.
 Bush, Joseph E., Hampstead, Md.
 Chepko, Julius, Westminster, Md.
 Culwell, William, Mt. Airy, Md.
 Foard, Wilbur H., Manchester, Md.
 Foutz, Charles R., Westminster, Md.
 Gardner, Robert E., Springfield State Hospital, Sykesville, Md.

Grabill, J. Stanley, Mt. Airy, Md.
 Gross, Gertrude, Sykesville, Md.
 Gross, Martin, Springfield State Hospital, Sykesville, Md.
 Hentzen, J. W., Sykesville, Md.
 Hitchman, Irene, Springfield State Hospital, Sykesville, Md.
 Jennette, W. C., Westminster, Md.
 Kamm, Ilse, Sykesville, Md.
 Lawson, William H., Eldersburg, Md.
 McVaugh, R. S., Taneytown, Md.
 Margolin, Ellis S., Sykesville, Md.
 Marsh, James T., 109 E. Main Street, Westminster, Md.
 Mastin, Morrell M., Sykesville, Md.
 Mead, Henry C. A., Winder Point, Easton, Md.
 Moulton, George Allen, Jr., Westminster, Md.
 Porterfield, M. C., Hampstead, Md.

Robertson, Merritt, New Windsor, Md.
 Sonnenfeldt, Gertrud, Springfield State Hospital, Sykesville, Md.
 Sonnenfeldt, Walther Herbert, Springfield State Hospital, Sykesville, Md.
 Speicher, Wilbur Glenn, 135 E. Main Street, Westminster, Md.
 Stevens, Walton E., Taneytown, Md.
 Stewart, William L., 59 Westmoreland Street, Westminster, Md.
 Stitely, Luther C., New Windsor, Md.
 Stone, William Carter, Westminster, Md.
 Verbal, Thomas, Henryton, Md.
 Wilkins, Elizabeth Reese, Westminster, Md.
 Woodward, Lewis K., Westminster, Md.

Cecil County

Andrews, S. Ralph, 233 E. Main Street, Elkton, Md.
 Bates, J. Herbert, Elkton, Md.
 Benson, C. I., Port Deposit, Md.
 Brannon, E. P., Asso., Veterans Administration Hospital, Perry Point, Md.
 Byers, John M., Cecil County Health Department, Elkton, Md.
 Cantwell, H. A., North East, Md.
 Crilly, James A., Asso., Veterans Administration Hospital, Perry Point, Md.
 Davis, H. Vincent, Chesapeake City, Md.
 Dodson, Richard C., Rising Sun, Md.
 Ells, Elizabeth S., Asso., Veterans Administration Hospital, Perry Point, Md.
 Fischer, John A., Asso., Veterans Administration Hospital, Perry Point, Md.
 Garey, James Lyman, Veterans Administration Hospital, 3900 Loch Raven Blvd., Baltimore 18, Md.
 Gerbarg, David S., Asso., Veterans Administration Hospital, Perry Point, Md.
 Goldgraben, Seymour, Perry Point, Md.
 Huebner, Klaus, North East, Md.
 Kreis, George J., Jr., U. S. Naval Station, Roosevelt Road, Puerto Rico.

DIRECTORY

Magraw, James F., Perryville, Md.
 McKnight, Vernon H., Elkton, Md.
 Morrison, Winfred T., Earlesville,
 R.D. 1, Md.
 Obenshain, Wallace, 2500th Medical
 Group, Mitchell Air Force Base,
 N. Y.
 Peffer, Peter A., Asso., Veterans Ad-
 ministration Hospital, Perry Point,
 Md.
 Rhode, C. Martin, Perry Point Hos-
 pital, Perry Point, Md.
 Richards, Granville H., Port Deposit,
 Md.
 Rothfeld, Ben, Asso., Perry Point,
 Md.
 Sadowsky, Wallace H., Perryville,
 Md.
 Sherman, Leo F., Sophia, W. Virginia
 Sprecher, Milford H., Elkton, Md.

Charles County

Andrews, James E., Indian Head, Md.
 Bicknell, George C., Marbury, Md.
 Coburn, Harry R., Bryantown, Md.
 Daly, Richard F., La Plata, Md.
 Edelen, Edward J., La Plata, Md.
 Espach, Walter C., Ellsmere Farm,
 Bryan's Road, Md.
 Griffen, John H., Hughesville, Md.
 Harris, Virginia Goddard, La Plata,
 Md.
 Harris, William A., La Plata, Md.
 Higdon, Thomas L., Wayside, Md.
 Jarboe, J. Parran, La Plata, Md.
 Robie, William A., U. S. Naval
 Academy, Annapolis, Md.
 Susan, Franklin, Indian Head, Md.
 Weber, George Samuel, Waldorf, Md.
 Woody, Arthur, La Plata, Md.

Dorchester County

*Brown, Hugh, Cambridge, Md.
 Brown, Robert D., Emeritus, East
 New Market, Md.
 Bunker, Albert E., Cambridge, Md.
 Frazier, L. G., Emeritus, 719 S. Gar-
 nett Street, Henderson, N. C.
 Gunby, Walter E., Cambridge, Md.
 Hanks, William H., Cambridge, Md.
 Harrison, William C., Hurlock, Md.
 Johnson, Walter B., Cambridge, Md.
 Jones, E. A. P., Emeritus, Cambridge,
 Md.

* Deceased.

Jones, Kenneth B., Church Creek,
 Md.
 Mace, John, Jr., 6 Church Street,
 Cambridge, Md.
 Marynov, Alfred R., Cambridge, Md.
 Marynov, Lawrence, 136 Race Street,
 Cambridge, Md.
 Meade, James W., Jr., Fishing Creek,
 Md.
 Meekins, Gilbert E., Cambridge, Md.
 Miller, Frederick A., Cambridge, Md.
 Parton, George, Cambridge, Md.
 Reddick, Robert H., Eastern Shore
 State Hospital, Cambridge, Md.
 Steele, Guy, Emeritus, Cambridge,
 Md.
 Thompson, James Upshur, Cam-
 bridge, Md.
 West, G. Brooks, Jr., Cambridge, Md.
 Winiarz, Elizabeth A., Eastern Shore
 State Hospital, Cambridge, Md.
 Winiarz, W.V., Eastern Shore State
 Hospital, Cambridge, Md.
 Wolff, Eldridge H., Cambridge, Md.

Frederick County

Ash, Howard W., 415 South Boule-
 vard, Evanston, Illinois
 Baer, Ridgely W., Frederick, Md.
 Baxter, J. Murray, 4 E. Church Street,
 Frederick, Md.
 Beall, Ira W., Libertytown, Md.
 Belt, Norvell, Professional Bldg.,
 Frederick, Md.
 Birely, Morris Franklin, Thurmont,
 Md.
 Bourne, U. G., Jr., 30 W. All Saints
 Street, Frederick, Md.
 Bourne, U. G., Sr., 30 W. All Saints
 Street, Frederick, Md.
 Brice, Arthur Talbot, Jefferson, Md.
 Burgess, Forbes H., Winchester Hall,
 Frederick, Md.
 Cadle, W. R., Emmitsburg, Md.
 Chase, Henry V., 7 E. Church Street,
 Frederick, Md.
 Conley, Charles H., Frederick, Md.
 Conley, Charles H., Jr., Professional
 Building, Frederick, Md.
 Culler, John McCleary, 17 E. Second
 Street, Frederick, Md.
 Derr, John S., 35 E. Church Street,
 Frederick, Md.
 Dettbarn, Ernest, E. Church Street,
 Frederick, Md.

Fifer, Jesse S., 35 E. Church Street,
 Frederick, Md.
 Furie, Robert, Frederick Memorial
 Hospital, Frederick, Md.
 Goodman, James Monroe, Emeritus,
 Frederick, Md.
 Gray, James King, Thurmout, Md.
 Green, Thomas W., Station Hospital,
 Camp Detrick, Frederick, Md.
 Guest, Russell L., 7 E. Church Street,
 Frederick, Md.
 Harp, Jacob Elmer, Middletown, Md.
 Horine, Arlington G., Brunswick, Md.
 Kline, Horace F., 7 N. Market Street,
 Frederick, Md.
 Lansdale, P. G., 35 E. Church Street,
 Frederick, Md.
 Lyon, Isadore B., State Sanatorium,
 Md.
 McAdoo, Hosea W., Ijamsville, Md.
 Martin, Rex, R. E. Church Street,
 Frederick, Md.
 Messler, John H., Johnsville, Md.
 Miller, Edgar A., Jr., Walkersville, Md.
 Orrison, William W., Brunswick, Md.
 Pearre, A. Austin, 4 E. Church Street,
 Frederick, Md.
 Pilgrim, Robert, Professional Build-
 ing, Frederick, Md.
 Pruitt, Charles E., Brunswick, Md.
 Quill, Thomas H., Professional Build-
 ing, Frederick, Md.
 Riggs, George Henry, Francis Scott
 Key Hotel, Frederick, Md.
 Schoolman, Louis Robert, Professional
 Building, Frederick, Md.
 Slusher, H. J., 7 E. Church Street,
 Frederick, Md.
 Smith, J. G. F., Brunswick, Md.
 Smith, W. M., Frederick, Md.
 Stone, Thomas E., 7 E. Church Street,
 Frederick, Md.
 Stoner, James E., Jr., Walkersville,
 Md.
 Thomas, Bernard O., Professional
 Building, Frederick, Md.
 Thomas, Bernard O., Jr., Professional
 Building, Frederick, Md.
 Thomas, Edward P., 4 E. Church
 Street, Frederick, Md.
 Thomas, James B., Professional Build-
 ing, Frederick, Md.
 Turner, Robert S., Jr., USA, 13912
 Laurel Street, Santa Ana, Calif.
 White, Byron D., 35 E. Church Street,
 Frederick, Md.

Woodward, Arthur, 4240 Flowerton Road, Baltimore 29, Md.
Worthington, Frank D., Frederick, Md.

Harford County

Barthel, Robert, Forest Hill, Md.
Cowan, Claude L., 569 Revolution Street, Havre de Grace, Md.

Dodd, J. W., 3 Aberdeen Avenue, Aberdeen, Md.

Dolce, Daniel D., 419 Congress Avenue, Havre de Grace, Md.

Dorigi, Benjamin, Cardiff, Md.

Finney, James McC., 330 S. Union Avenue, Havre de Grace, Md.

Foley, Charles J., 400 S. Union Avenue, Havre de Grace, Md.

Fowler, Robert A., 226 Union Avenue, Havre de Grace, Md.

Hatem, Frederick J., 17 N. Philadelphia Blvd., Aberdeen, Md.

Hayman, Charles R., Health Department, Bel Air, Md.

Hodous, Frederick O., Edgewood, Md.
Horky, J. Ralph, Churchville, Md.

Hudson, Willard P., Forest Hill, Md.
Lewis, Addison LeRoy, 214 N. Union

Avenue, Havre de Grace, Md.

McDonald, Brown, Jr., 100 Parke Street, Aberdeen, Md.

Neff, C. A., Street, Md.
Norment, Richard III, 407 Union

Avenue, Havre de Grace, Md.

Palmer, Gerald C., 211 S. Main Street Bel Air, Md.

Phillips, Dudley, Darlington, Md.
Richardson, Charles, Main Street, Bel Air, Md.

Rodman, Peter P., P.O. Box 441, Aberdeen, Md.

Sandecki, Alexander, 15 Courtland Street, Bel Air, Md.

Sidwell, Harvey P., 138 N. Main Street, Bel Air, Md.

Simon, Edward J., 123 S. Union Avenue, Havre de Grace, Md.

Snodgrass, Frank P., Darlington, Md.
Stansbury, George, 569 Revolution

Street, Havre de Grace, Md.

Stewart, Charles W., Jr., 1 Cedar Street, Edgewood, Md.

Stonesifer, Paul, 615 Hickory Avenue, Bel Air, Md.

Thomison, Samuel J., Jr., Jarrettsville, Md.

*Van Bibber, Armfield F., Bel Air, Md.
Waschman, Irvin L., Union Avenue & Franklin Street, Havre de Grace, Md.

Wolbert, Frank, Jr., Havre de Grace, Md.

Howard County

Brumbaugh, B. Bruce, Elkrige, Md.
Burgto, George E., Jr., Ellicott City, Md.

Fisher, Donald E., 107 S. Belle Grove Road, Catonsville, Md.

Gassaway, William N., Emeritus, Ellicott City, Md.

Groleau, George E., Elkrige, Md.
Hemminger, Earl W., Ellicott City, Md.

Shipley, Frank Earl, Savage, Md.
Shrop, Theodore R., Health Department, Ellicott City, Md.

Taylor, Irving J., Ellicott City, Md.
Whitaker, Charles Stanley, Clarksville, Md.

Kent County

Brice, Merritt, Millington, Md.
Copeland, H. P., Chestertown, Md.

*Dedman, James E., Betterton, Md.
Dick, A. C., Chestertown, Md.

Ensor, Robert Ellwood, 2272 Medical Squadron, Orlando Air Force Base, Orlando, Florida.

Farr, Robert W., Chestertown, Md.
Gulbrandsen, Oskar S., Chestertown, Md.

Hamilton, H. H., Millington, Md.
Joyce, Florence D., Worton, Md.

Kester, Eugene, Rock Hall, Md.
Simpers, Henry G., Chestertown, Md.

Smith, Willard F., Rock Hall, Md.
Whitsitt, A. F., Chestertown, Md.

Montgomery County

Adland, Marvin L., 312 Essex Avenue, Chevy Chase, Md.

Alden, Manning W., 915 Silver Spring Avenue, Silver Spring, Md.

Allen, Samuel, 18 Fawcett Street, Kensington, Md.

Anderson, Clifford R., Washington Sanitarium & Hospital, Takoma Park, Md.

Andren, Henry E., 7600 Carroll Avenue, Takoma Park, Md.

Andrews, John M., 9601 Colesville Road, Silver Spring, Md.

Angle, Robert G., 106 Del Ray Avenue, Bethesda, Md.

Aud, William Dudley, 9006 Colesville Road, Silver Spring, Md.

Avery, John Lawrence, 10110 Georgia Avenue, Silver Spring, Md.

Baernstein, Laura Nelson, 4611 Highland Avenue, Bethesda, Md.

Ball, John G., 7936 Georgetown Road, Bethesda, Md.

Bankhead, J. Marion, 9601 Sutton Place, Silver Spring, Md.

Barrett, B. Irene, 6900 Wisconsin Avenue, Chevy Chase, Md.

Barrett, Robert J., 6900 Wisconsin Avenue, Chevy Chase, Md.

Bauer, Arthur S., 8641 Colesville Road, Silver Spring, Md.

Bauersfeld, Emil G., 7345 Wisconsin Avenue, Bethesda, Md.

Bauersfeld, S. Richard, 7345 Wisconsin Avenue, Bethesda 14, Md.

Bier, Robert A., 9128 Woodland Drive, Silver Spring, Md.

Bird, J. W., Sandy Spring, Md.

Black, Emilie Annabelle, 5081 Bradley Blvd., Bethesda, Md.

Bonifant, Dement, Sandy Spring, Md.

Boyer, George M., Damascus, Md.

Boyer, M. McKendree Damascus, Md.

Brennan, Andrew J., 7725 Aberdeen Road, Bethesda, Md.

Broschart, Frank J., 8 Russell Avenue, Gaithersburg, Md.

Brownsberger, John F., Washington Sanitarium & Hospital, Takoma Park, Md.

Bullard, Dexter M., Chestnut Lodge, Rockville, Md.

Burnham, Donald Love, 500 W. Montgomery Avenue, Rockville, Md.

Calvert, Read N., 7894 Georgia Avenue, Silver Spring, Md.

Cantor, Paul D., 4709 Montgomery Lane, Bethesda, Md.

Chapman, Katherine A., 3924 Baltimore Street, Kensington, Md.

Coale, Robert N., 8707 Cranbrook Court, Bethesda, Md.

Cohen, Maynard I., 2412 Colston Drive, Silver Spring, Md.

* Deceased.

DIRECTORY

Congdon, Charles C., Asso., Ntl. Cancer Inst., Bethesda, 14, Md.

Cotlove, Elaine W., 10302 Warner Avenue, Kensington, Md.

Coyne, Arthur E., Washington Sanitarium & Hospital, Takoma Park, Md.

Cross, Merrill M., 8248 Georgia Avenue, Silver Spring, Md.

Cullander, Cecil C. H., 500 W. Montgomery Ave., Rockville, Md.

Curry, John J., 11301 Georgia Avenue, Silver Spring, Md.

Curtis, Leo M., 5707 Wisconsin Avenue, Chevy Chase, Md.

Cushard, William G., 703 E. Leland Street, Chevy Chase, Md.

Cuvillier, L. Marshall, Jr., 1407 Woodside Parkway, Silver Spring, Md.

Danish, Abraham W., 913 Pershing Drive, Silver Spring, Md.

De Lawter, De Witt, E., 7325 Aberdeen Road, Bethesda 14, Md.

Diamond, Herbert H., 8224 Georgia Avenue, Silver Spring, Md.

Donovan, Leo I., 8016 Old Georgetown Road, Bethesda, Md.

Downing, Virginia, Asso., Temporary 74, The Fenway, Boston 15, Mass.

Dun, Alan A., 6719 Fairfax Road, Bethesda 14, Md.

Dunn, E. A. A., Asso., 4617 East West Highway, Bethesda, Md.

Dyrud, Jarl E., Chestnut Lodge, Rockville, Md.

Eastman, W. W., 8700 Colesville Road, Silver Spring, Md.

Eig, Blaine H., 8641 Colesville Road, Silver Spring, Md.

Eldred, Stanley H., 7710 Granada Drive, Bethesda 14, Md.

Ellcott, Valcoulon L., County Health Department, Rockville, Md.

Fawcett, John, Boyds, Md.

Felix, Robert H., Asso., Ntl. Institute of Mental Health, Bethesda, Md.

Firminger, Harlan I., University of Kansas Medical School, Kansas City 3, Kansas

Fitzgerald, Bernard A., 9620 Old Bladensburg Road, Silver Spring, Md.

Fitzgerald, James Blaine, 4641 Montgomery Avenue, Bethesda 14, Md.

Fromm-Reichman, Frieda, 500 W. Montgomery Avenue, Rockville, Md.

Gadol, William N., 8016 Old Georgetown Road, Bethesda, Md.

Gau, Bertrand C. R., 1001 Seminary Road, Silver Spring, Md.

George, George P., 9404 Colesville Road, Silver Spring, Md.

Geist, Jack E., 918 Ellsworth Drive, Silver Spring, Md.

Gibson, Robert W., 614 Monroe Street, Rockville, Md.

Gill, Dorothy, 7011 Arlington Road, Bethesda, Md.

Glick, Herbert D., 8301 Piney Branch Road, Silver Spring, Md.

Gray, George A., Jr., 104 Chevy Chase Drive, Chevy Chase, Md.

Greenberg, Robert M., 2304 Colston Drive, Silver Spring, Md.

Haak, Paul, 8801 Colesville Road, Silver Spring, Md.

Hall, Edwin P., 1701 Forest Glen Road, Silver Spring, Md.

Hall, W. G., 615 W. Montgomery Avenue, Rockville, Md.

Hare, Robert A., Washington Sanitarium and Hospital, Takoma Park, Md.

Harmon, Ernest E., 12 Cleveland Avenue, Takoma Park, Md.

Hartley, G. V., 103 Forest Avenue, Rockville, Md.

Hindman, Thomas A. N., 6 W. Washington Street, Kensington, Md.

Hornibrook, John W., Ntl. Institute of Health, Bethesda, Md.

Huff, Wheeler O., 4529 Maple Avenue, Bethesda, Md.

Hughes, Emma, Washington Sanitarium and Hospital, Takoma Park, Md.

Jaeger, Henry William 918 Ellsworth Drive, Silver Spring, Md.

Jaeger-Lee, Dorothy S., 913 Pershing Drive, Silver Spring, Md.

Jaggers, Frank Y., Jr., 5707 Wisconsin Avenue, Chevy Chase 15, Md.

Jameson, Patrick C., 11602 Georgia Avenue, Wheaton, Md.

Jarvis, Marjorie, 100 Park Street, Rockville, Md.

Jones, Phillip Edward, 904 Ellsworth Drive, Silver Spring, Md.

Jones, Stephen Noland, RFD. #4, Rockville, Md.

Joyce, William T., 546 Maple Ridge Road, Bethesda, Md.

Kenrick, Joseph P., 7942 Wisconsin Avenue, Bethesda, Md.

Kerr, James P., Damascus, Md.

Kimble, J. Norman, Washington Sanitarium and Hospital, Washington 12, D. C.

Kress, Daniel H., 405 Niblic Avenue, Orlando, Fla.

Kress, Lauretta E., 405 Niblic Avenue, Orlando, Fla.

Kroutil, Ludwig C., 904 Ellsworth Drive, Silver Spring, Md.

Kroutil, Persie M., 904 Ellsworth Drive, Silver Spring, Md.

Landman, Manuel P., 216 Dearborn Avenue, Silver Spring, Md.

Lang, Louis R., 8641 Colesville Road, Silver Spring, Md.

Laughlin, Henry P., 6206 Hillcrest Place, Chevy Chase, Md.

Laughlin, Kenneth F., 934 Ellsworth Drive, Washington Building, Silver Spring, Md.

Ligon, Charles H., Sandy Spring, Md.

Linthicum, William A., 110 S. Washington Street, Rockville, Md.

Lombard, Peter N., 812 Sligo Avenue, Silver Spring, Md.

Lorenz, Elmer W., Washington Sanitarium and Hospital, Takoma Park, Md.

Lucius, Naomi T., 9601 Georgia Avenue, Silver Spring, Md.

Lynch, John M., Asso., Ntl. Inst. of Health, Bethesda 14, Md.

McCarrick, James P., 326 E. Montgomery Avenue, Rockville, Md.

McDonald, Audrey J., Montgomery County Health Dept., Rockville, Md.

McNeill, Willard P., 8801 Colesville Road, Silver Spring, Md.

Mahler, Paula T., 8712 Old Georgetown Road, Bethesda, Md.

Marks, Irving L., 6306 Wisconsin Avenue, Chevy Chase, Md.

Martens, Vernon E., Asso., U. S. Naval Medical School, Bethesda, Md.

Martinez, F. A., 7209 Overhill Road, Bethesda 14, Md.

Masur, Jack, Asso., 3821 Gramercy Street, N. W., Washington, D. C.

Maxwell, George A., 918 Ellsworth Drive, Silver Spring, Md.

Meade, DeVoe K., 504 Tulip Avenue, Takoma Park, Md.

Meyers, Wilford D., 8619 Flower Avenue, Takoma Park, Md.

Miller, William C., 7 Brooks Avenue, Gaithersburg, Md.

Mitchell, Claude William, 8055 Thirteenth Street, Silver Spring, Md.

Mitchell, Harold H., R.F.D. #2, Gaithersburg, Md.

Mitchell, Reginald H., 6900 Wisconsin Avenue, Chevy Chase, Md.

Mones, Marvin I., 918 Ellsworth Drive, Silver Spring, Md.

Moody, Louis H., Jr., 918 Ellsworth Drive, Silver Spring, Md.

Mook, Wallace N., 805 Carroll Avenue, Takoma Park, Md.

Morse, H. T., 7030 Carroll Avenue, Takoma Park, Md.

Murgolo, V. John, 913 Pershing Drive, Silver Spring, Md.

Murphy, William S., 615 W. Montgomery Avenue, Rockville, Md.

Nicholson, Ralph L., Eucom. Medical Training Center, APO 108 Army U. S., % P.M., New York

Norcross, John A., 9211 Georgia Avenue, Silver Spring, Md.

Norton, Alfred, 4711 Highland Avenue, Bethesda, Md.

O'Brien, Helen K., 26 W. Montgomery Avenue, Rockville, Md.

Oliver, Norman, 1108 Woodside Parkway, Silver Spring, Md.

O'Neill, Allen J., 7940 Old Georgetown Road, Bethesda 14, Md.

Patrick, George B., Jr., 8700 Colesville Road, Silver Spring, Md.

Patten, Ralph F., 8641 Colesville Road, Silver Spring, Md.

Perry, Morris, 11602 Georgia Avenue, Silver Spring, Md.

Price, Florence R., 4615 Edgefield Road, Parkwood, Bethesda 14, Md.

Price, V. E., 4615 Edgefield Road, Parkwood, Bethesda 14, Md.

Queen, Greenville Burton, 7112 Willow Ave., Takoma Park, Md.

Reap, Belden R., 11502 Grandview Avenue, Silver Spring, Md.

Reith, M. Isabel, 504 Tulip Avenue, Takoma Park, Md.

Richwine, Alfred H., 5522 Western Avenue, Chevy Chase, Md.

Rintz, Norman C., 4701 Bradley Boulevard, Bethesda 14, Md.

Robben, John O., 7930 Georgia Avenue, Silver Spring, Md.

Roberts, James A., 8901 Colesville Road, Silver Spring, Md.

Rogers, John S., 1009 Seminary Road, Silver Spring, Md.

Rohrbaugh, Austin B., Jr., 104 Chevy Chase Drive, Chevy Chase, Md.

Rosenberger, Gordon S., 310 W. Montgomery Avenue, Rockville, Md.

Saxon, Jackson A., 7806 Garland Avenue, Takoma Park, Md.

Schultz, George N., 9514 Colesville Road, Silver Spring, Md.

Schumacher, Jack, 105 Russell Avenue, Gaithersburg, Md.

Segall, Harold, 11301 Georgia Avenue, Wheaton, Md.

Sewell, Webster, Norbeck, R.F.D. 1, Silver Spring, Md.

Sharpe, George, 10644 Connecticut Avenue, Kensington, Md.

Shirley, R. King, 26 Walker Avenue, Gaithersburg, Md.

Shoemaker, Norman C., 8005 Woodbury Drive, Silver Spring, Md.

Smith, Gordon Murdock, Barnesville, Md.

Smith, John E., 5029 Bethesda Ave., Bethesda, Md.

Snow, Lee B., 9013 Flower Avenue, Silver Spring, Md.

Snow, Margaret, 9013 Flower Avenue, Silver Spring, Md.

Spence, George Roland, 904 Ellsworth Drive, Silver Spring, Md.

Standard, Ruth, Washington Sanitarium and Hospital, Takoma Park, Md.

Starr, Paul V., Washington Sanitarium, Takoma Park, Md.

Staveren, Herbert H., 11th & U Streets, N. W., Washington, D. C.

Tamagna, Irene, 6501 Connecticut Avenue, Chevy Chase, Md.

Thibadeau, Andrew F., 10111 Colesville Road, Silver Spring, Md.

Thibadeau, Richard B., Medical Director, Cedar Craft Sanitarium, Silver Spring, Md.

Traum, Aaron H., 8237 Georgia Avenue, Silver Spring, Md.

Varner, Philip Holt, 7202 Connecticut Avenue, Chevy Chase, Md.

Voss, Harriet R., 8107 Roanoke Avenue, Takoma Park, Md.

Wardrop, W. B., 837 Bonifant Street, Silver Spring, Md.

Warfield, Charles I., 8035 13th Street, Silver Spring, Md.

Warthen, Robert O., Asso., 62 Lincoln Avenue, Kensington, Md.

Weber, Harry G., Washington Sanitarium and Hospital, Takoma Park, Md.

Weber, Velda A., Washington Sanitarium and Hospital, Takoma Park, Md.

Weigert, Edith V., 12 Oxford Street, Chevy Chase 15, Md.

Weininger, Benjamin, Olney, Md.

Welsh, William W., 104 S. Washington Street, Rockville, Md.

White, Mary Julian, 500 W. Montgomery Avenue, Rockville, Md.

White, Merton L., 9715 Georgia Avenue, Silver Spring, Md.

White, Roland H., 846 Georgia Avenue, Silver Spring, Md.

Yates, Richard, Box 127, Olney, Md.

Zack, Frank A., 8248 Georgia Avenue, Silver Spring, Md.

Ziegler, Mark V., Asso., Brookeville, Md.

Prince George's County

Ammerman, Harvey, Asso., 2025 Eye Street, Washington, D. C.

Bachrach, Louis B., Asso., 915-19th St., N. W., Washington 6, D. C.

Bauer, Richard D., 5610-39th Avenue, Hyattsville, Md.

Bayly, John H., Asso., 1835 Eye Street, N.W., Washington, D. C.

Berman, Leonard Stanley, Asso., 915-19th Street, N. W., Washington, D. C.

Bloomberg, Max, 30-D Ridge Road, Greenbelt, Md.

Bosworth, Robert J., Asso., 811-8th Street, N. E., Washington 2, D. C.

Boyd, James Irving, 8200 Marlboro Pike, S. E., Washington, D. C.

Brady, Z. M., 6715 Roosevelt Street, Seat Pleasant, Md.

Brainin, William, 6124 Central Street, Capitol Heights, Md.

Bunge, Wm. R., 305 Prince George, Laurel, Md.

Campbell, Kenneth D., 9705 Rhode Island Avenue, College Park, Md.

Chase, Wm. W., Asso., 915-19th Street, N. W., Washington, D. C.

Christensen, Thomas A., 6905 Baltimore Blvd., College Park, Md.

Clayman, David S., 6311 Baltimore Avenue, Riverdale, Md.

Clum, John P., 6110-43rd Avenue, Hyattsville, Md.

Coggins, Jesse C., Laurel, Md.

Comeau, U. D., 3303 Perry Street, Mt. Rainier, Md.

Cox, Oliver C., Asso., 4616 Argyle Terrace, Washington 11, D. C.

DIRECTORY

D'Angelo, John P., 4223 Silver Hill Road, S. E., Washington 20, D. C.

Davies, Harry, Asso., 1835 Eye Street, N. W., Washington, D. C.

Deitz, Aaron, 4314 Gallatin Street, Hyattsville, Md.

Derzavis, Jack L., 4314 Gallatin Street, Hyattsville, Md.

Diamond, Leopold, Asso., 3311 Chauncey Place, Mt. Rainier, Md.

Eisner, William, 30 B. Ridge Road, Greenbelt, Md.

Englar, Thomas S., Asso., County Service Bldg., Hyattsville, Md.

Etienne, Wolcott L., 7010 Wake Forest Drive, College Park, Md.

Evans, Nelsa Wade, Asso., 4319 Clagett-Pine Way, Hyattsville, Md.

Farwell, Charles, 4500 College Avenue, College Park, Md.

Feffer, James J., Asso., 1711 Rhode Island Avenue, N. W., Washington 6, D. C.

Ferris, Harry E., Professional Building, Hyattsville, Md.

Finucane, Daniel Leo, Asso., Glen Dale Sanitorium, Glen Dale, Md.

Fleischer, Ronald S., Hamilton Manor Apts., 5432 Queens Chapel Road, Hyattsville, Md.

Fogel, Julius, Asso., 1726 M. Street, N. W., Washington, D. C.

Frank, William, 132 S. Adams St., Rockville, Md.

French, Leslie, Asso., 1726 Eye Street, N. W., Washington, D. C.

Gallin, Leon L. No address given

Geiger, Hugh, 3001 Lancer Drive, Hyattsville, Md.

Gibson, Walcutt W., Asso., Box 5109, Branch Avenue, Washington 20, D. C.

Gilbert, Jules, Asso., 3200 Chillum Road, Mt. Rainier, Md.

Glickfield, H., Wayne, 6826 Riggs Road, Hyattsville, Md.

Grassgreen, Irvin, 2503 Queens Chapel Road, Mt. Rainier, Md.

Griffith, W. Allen, 4900 Ricatan Street, College Park, Md.

Hagan, Wm. B., 3306 Rhode Island Avenue, Mt. Rainier, Md.

Hageage, Charles C., 3308 Perry Street, Mt. Rainier, Md.

Hageage, George J., 3717-38th Avenue, Cottage City, Md.

Haught, John S., 3306 Rhode Island Avenue, Mt. Rainier, Md.

Hays, Leonard, 5201 Baltimore Avenue, Hyattsville, Md.

Holbrook, William A., Jr., 4500 College Avenue, College Park, Md.

Hughes, Lloyd W., 4605 Fordham Road, College Park, Md.

Hutchins, Thomas M., 2715 Lake Avenue, Cheverly, Md.

Jimal, Louis M., 4008 Bladensburg Road, Cottage City, Md.

Kauffman, Julius, 5102 Annapolis Road, Bladensburg, Md.

Kehoe, John, 3403 Cheverly Avenue, Cheverly, Md.

Kelley, Gordon W., 6124-41st Avenue, Hyattsville, Md.

Kettler, Martin, Glenn Dale Sanitorium, Glenn Dale, Md.

Kylar, Stephen L., U. S. Army Hosp., Camp Carson, Colo. Springs, Colo.

Lapin, Alfred R., Clinton Medical Center, Clinton, Md.

Latimer, Guy W., 4313 Gallatin Street, Hyattsville, Md.

Lavine, Harold, Asso., 5802 Baltimore Avenue, Hyattsville, Md.

Lavine, Oscar, 3215 Varnum Street, Mt. Rainier, Md.

Lowry, S. W., 601 Washington Blvd., District Heights, Md.

McCeney, Robert S., Laurel, Md.

McDonald, Joseph J., 7309 Riggs Road, W. Hyattsville, Md.

McDonnell, Henry B., 7400 Dartmouth St., College Park, Md.

McLain, George H., Asso., 1746 K Street, N. W., Washington, D. C.

McLendon, Preston A., Asso., 2146 Wyoming Avenue, N. W., Washington, D. C.

Malin, Lawrence White, 102 W. Madison Avenue, Riverdale, Md.

Maloney, John T., 2202 Cheverly Avenue, Cheverly-Hyattsville, Md.

Mendel, C. Louis, 4506 College Street, College Park, Md.

Michel, Helene Doetsch, Asso., 6518-40th Avenue, University Parkway, Hyattsville, Md.

Miller, Benjamin S., 3213 Varnum Street, Mt. Rainier, Md.

Mock, Ernest L., Asso., 4212-29th Street, Mt. Rainier, Md.

Moyers, Waldo B., 3303 Perry Street, Mt. Rainier, Md.

Murphy, James P., Asso., 1911 R Street, N.W., Washington, D. C.

Musser, Frederick, 7409 Varnum Street, Bellmeade, Hyattsville, Md.

Neviasier, Julius, Asso., 1918 K Street, N. W., Washington, D. C.

*Norton, William H., Mt. Rainier, Md.

Perkins, John, 5301 Hamilton Street, E. Riverdale, Md.

Phillips, Rowland S., Glenn Dale Sanatorium, Glenn Dale, Md.

Rabkin, Boris, 1200 Lebanon Street, Silver Spring, Md.

Rector, George M., Aquasco, Md.

Ritchie, W. S., Ritchie Road, S. E., Washington, D. C.

Roth, Albert, 5435 Madison Street, East Riverdale, Md.

Sands, James P., Laurel Sanitorium, Laurel, Md.

Sarao, E. A., 7006 N. H. Avenue, Takoma Park, Md.

Sasscer, James G., Upper Marlboro, Md.

Sasscer, Robert B., Upper Marlboro, Md.

Schwartzbach, Saul, Asso., 1726 Eye Street, N. W., Washington, D. C.

Shear, M. R., 3200 Chillum Road, Mt. Rainier, Md.

Shipley, Trajan E., 3450 Med. Gp. ATRC, Frances E. Warren AFB, Cheyenne, Wyo.

Stecher, William, Jarboe Avenue, Burnt Mills Hills, Silver Spring, Md.

Stewart, N. B., 314 Compton Avenue, Laurel, Md.

Sugar, Samuel J. N., 4300 Kaywood Gardens, Mt. Rainier, Md.

Sugar, S. Jack, 5802 Baltimore Avenue, Hyattsville, Md.

Suraci, Alfred, Asso., 915-19th Street, N. W., Washington 6, D. C.

Tilley, Russell M., 5250 South Ellis Avenue, Chicago 15, Ill.

Ulshafer, Chloe B., 322 Prince George Street, Laurel, Md.

Ulshafer, Thomas R., 322 Prince George St., Laurel, Md.

Van Natta, Paul Clopton, 5440 Silver Hill Road, Parkland, Md.

Warren, B. P., Laurel, Md.

* Deceased.

Warren, J. Francis, Asso., 2015 "R" Street, N. W., Washington, D. C.
 Warren, John M., 305 Prince George Street, Laurel, Md.
 Watkins, Dayton O., 5208 Annapolis Road, Bladensburg, Md.
 Weiss, Moe, Glenn Dale Sanitarium, Glenn Dale, Md.
 Wilkinson, Rowland Francis, Asso., 4404 Queensbury Road, Riverdale, Md.
 Wodak, Hans, 6-5 S. Ridge Road, Greenbelt, Md.
 Wolfe, Henry R., 5603 Chillum Heights Drive, Hyattsville, Md.

Queen Anne's County

Callison, Caroline H., Queen Anne's County Health Dept., Centreville, Md.
 Dudley, Norman S., Church Hill, Md.
 Fisher, W. H., Centreville, Md.
 Hoyt, Irvin G., Queenstown, Md.
 Layton, C. Rodney, Centreville, Md.
 McPherson, H. F., Centreville, Md.
 Martin, G. William, Jr., Queenstown, Md.
 Miller, Robert B., 307 Talbot Ave., Cambridge, Md.
 Sattelmairer, Theodor, Stevensville, Md.
 Shepherd, Frederick P., 814 Legare Road, Aiken, S. C.

St. Mary's County

Barbarich, Michael, Laurence Avenue, Leonardtown, Md.
 Bean, Philip J., Great Mills, Md.
 Boyd, William D., Leonardtown, Md.
 Camalier, F. A., Leonardtown, Md.
 Fuchs, Robert T., Leonardtown, Md.
 Greenwell, Francis Floyd, Leonardtown, Md.
 Guyther, J. Roy, Mechanicsville, Md.
 Houser, Alan D., Leonardtown, Md.
 Johnson, Leonard B., Morganza, Md.
 Lane, Julian S., Lexington Park, Md.
 Palmer, Robert Vickery, Avenue, Md.
 Patrick, William H., 323 Midway Drive, Lexington Park, Md.
 Sothonon, L. J., Charlotte Hall, Md.
 Thibadeau, Robert T., St. Inigoes, Md.
 Thompson, Earl, Piney Point, Md.

Somerset County

Barr, A. N., Crisfield, Md.
 Callicott, Robert Malcolm, 20 Prince William Street, Princess Anne, Md.

Chambers, Merritt G., Asso., Pittsville, Md.
 Collins, Clarence E., Crisfield, Md.
 Coulbourn, George C., Marion Station, Md.
 Coulbourn, William H., Crisfield, Md.
 Dunn, George M. (Address unknown)
 Johnson, Robert H., Princess Anne, Md.
 Lewis, Robert F., Crisfield, Md.
 Peyton, Sarah M., Crisfield, Md.
 Rawley, C. G., Crisfield, Md.
 Schwatka, C. Taylor, Columbia Avenue, Crisfield, Md.
 Whaley, T. B., Princess Anne, Md.

Talbot County

Ambler, J. Thompson B., Easton, Md.
 Baker, J. Tyler, Easton, Md.
 Bartley, Donald F., 9 N. Hanson Street, Easton, Md.
 Baybutt, J. E., 214 E. Dover Street, Easton, Md.
 Buell, Martin F., Easton, Md.
 Cecil, A. B., Jr., Easton, Md.
 Cox, P. Evans, Easton, Md.
 Eareckson, Vincent O., Jr., 300 South Hanson Street, Easton, Md.
 Hammond, W. T., Easton, Md.
 Harrison, Thurston, Easton, Md.
 Kinnaman, Howard F., Easton, Md.
 Krech, Shepard, Jr., 9 N. Hanson Street, Easton, Md.
 Lawson, Edward Kirby, Oxford, Md.
 Lederer, Kurt, Queen Anne, Md.
 Mason, Frank E., 18 W. Dover Street, Easton, Md.
 Milholland, Arthur Vincent, St. Michaels, Md.
 Noble, William D., 214 E. Dover Street, Easton, Md.
 Palmer, Margaret Virginia, Easton, Md.
 Palmer, W. N., Easton, Md.
 Perkins, R. L., Royal Oak, Md.
 Reeser, Guy M., Tilghman's Island, Md.
 Reeser, Guy M., Jr., St. Michaels, Md.
 Schmidt, Edward C. H., Easton Hospital, Easton, Md.
 Schneider, John F., Easton, Md.
 Seymour, W. S., Trappe, Md.
 Stevens, A. McC., Easton, Md.
 Welty, Louis S., Easton, Md.
 Willson, S. Denny, St. Michaels, Md.
 Winters, William L., Easton, Md.

Washington County

Bacon, A. Maynard, Jr., 318 N. Potomac Street, Hagerstown, Md.
 Baptista, Arthur, Jr., 115 King Street, Hagerstown, Md.
 Beachley, Jack H., 221 W. Washington Street, Hagerstown, Md.
 Bell, R. A., 119 N. Potomac Street, Hagerstown, Md.
 Bender, W. R., 1140 Potomac Avenue, Hagerstown, Md.
 Binford, Richard T., 797 St. Charles Avenue, N. E., Atlanta, Georgia
 Binkley, O. H., Hagerstown, Md.
 Blair, Harry Edwin, Hagerstown, Md.
 Bowman, Harry Daniel, 318 N. Potomac Street, Hagerstown, Md.
 Brewer, David R., Clear Spring, Md.
 Brumback, Lynn H., 170 W. Washington Street, Hagerstown, Md.
 Butterfield, Paul Wm., Long Meadows Apts., 5C, Hagerstown, Md.
 Campbell, Edgar Thrall, 145 W. Washington Street, Hagerstown, Md.
 Campbell, Robert van Lieu, 145 W. Washington Street, Hagerstown, Md.
 Campbell, William D., Hagerstown, Md.
 Cohen, Archie Robert, Clear Spring, Md.
 Conrad, Robert P., 137 W. Washington Street, Hagerstown, Md.
 Crawford, J. W., P.O. Box 654, Martinsburg 1, W. Va.
 Ditto, E. W., Jr., Hagerstown, Md.
 Dobbie, John James, 115 King Street, Hagerstown, Md.
 Dove, Frederick Denton, Jr., 214 N. Potomac Street, Hagerstown, Md.
 Dwyer, James Richard, 245 N. Potomac Street, Hagerstown, Md.
 Gilmer, H. D., Hagerstown, Md.
 Graff, Frederick L., 116 W. Washington Street, Hagerstown, Md.
 Graff, Henry F., 116 W. Washington Street, Hagerstown, Md.
 Hauer, Richard V., 138 W. Washington Street, Hagerstown, Md.
 Hirshman, P. J., 159 W. Washington Street, Hagerstown, Md.
 Hoachlander, Eldon George, 115 W. Washington Street, Hagerstown, Md.
 Hofiman, Lloyd Augustus, 214 N. Potomac Street, Hagerstown, Md.

DIRECTORY

Hornbaker, John H., 158 W. Washington Street, Hagerstown, Md.
 Houghton, Ira Luther, 115 W. Washington Street, Hagerstown, Md.
 Jennings, George., 136 W. Washington Street, Hagerstown, Md.
 Keadle, R. F., 132 W. Washington Street, Hagerstown, Md.
 Kneisley, Bender B., 148 W. Washington Street, Hagerstown, Md.
 Kohler, G. A., Smithsburg, Md.
 Layman, J. W., 100 Professional Arts Bldg., Hagerstown, Md.
 Layman, Wm. T., 100 Professional Arts Bldg., Hagerstown, Md.
 Le Van, G. Wilburforce, Boonsboro, Md.
 Link, Vaughn Harwood, 245 N. Potomac Street, Hagerstown, Md.
 Lusby, Frank F., 230 N. Potomac Street, Hagerstown, Md.
 Macht, Stanley Howard, Washington County Hospital, Hagerstown, Md.
 Miller, Victor D., Hagerstown, Md.
 Moran, John A., 215 W. Washington Street, Hagerstown, Md.
 Mowrer, C. L., Hagerstown, Md.
 Norment, Richard B. J., 119 E. Antietam Street, Hagerstown, Md.
 Novenstein, Sidney, Funkstown, Md.
 Poole, Ernest F., 138 W. Washington Street, Hagerstown, Md.
 Prather, Perry F., 5203 Falls Road, Baltimore 10, Md.
 Sacchet, Hugo Anthony, 151 W. Washington Street, Hagerstown, Md.
 Sachs, James Wilbur, 151 W. Washington Street, Hagerstown, Md.
 Schulze, Wm. C., Hagerstown, Md.
 Shaffer, Lester M., Hancock, Md.
 Shealy, Walter H., Sharpsburg, Md.
 Shupp, F. F., 109½ N. Potomac Street, Hagerstown, Md.
 Smith, W. Hamilton, 138 W. Washington Street, Hagerstown, Md.
 Smoot, Merrill C., 703 Oak Hill Avenue, Hagerstown, Md.
 Spence, James E. H., Western Maryland Railway Co., Hagerstown, Md.
 Sprecher, Omar Daniel, Jr., 314 N. Potomac Street, Hagerstown, Md.
 Stauffer, R. S., Hagerstown, Md.
 Sullivan, Margaret E., 318 N. Potomac Street, Hagerstown, Md.
 Tabler, Homer E., Hancock, Md.
 Tobias, Herbert R., Hancock, Md.

* Deceased.

Wade, John H., Boonsboro, Md.
 Warden, Jacob Garvin, 832 Potomac Avenue, Hagerstown, Md.
 Warner, Mary Patricia, 1306 N. Potomac Avenue, Hagerstown, Md.
 Wells, Samuel Robert, Hagerstown, Md.
 Welty, Dalton M., E. Hillcrest at Potomac Street, Hagerstown, Md.
 Wilson, John Dean, 135 N. Potomac Street, Hagerstown, Md.
 Wolfgang, W. L., Waynesboro, Penna.
 Wroth, Peregrine, Jr., 145 S. Prospect Street, Hagerstown, Md.
 *Yeager, W. H., Hagerstown, Md.
 Young, Ralph Funk, 101 E. Potomac Street, Williamsport, Md.
 Young, Richard Atlee, 318 N. Potomac Street, Hagerstown, Md.
 Young, S. Earl, 148 N. Potomac Street, Hagerstown, Md.
 *Zimmerman, I. M., Williamsport, Md.

Wicomico County

Baker, Robert L., 204 N. Division Street, Salisbury, Md.
 Barnes, Harry A., Sykesville, Md.
 Bishop, James R., E. Main Street, Salisbury, Md.
 Bloxom, John M., 304 N. Division Street, Salisbury, Md.
 Briele, Henry, 226 N. Division Street, Salisbury, Md.
 Christensen, Osborne D., 321 S. Division Street, Salisbury, Md.
 Cooper, William, 224 N. Division Street, Salisbury, Md.
 Dumeyer, William, Peninsula General Hospital, Salisbury, Md.
 Ellis, Wilbur R., Jr., 707 Camden Avenue, Salisbury, Md.
 Emrich, William, Hebron, Md.
 Fisher, Chas. T., 200 N. Division Street, Salisbury, Md.
 Fisher, Wm. Henry, Jr., 226 N. Division Street, Salisbury 1, Md.
 Gillis, Marion Howard, Jr., 206 Walnut Street, Salisbury, Md.
 Gilmore, David J., 707 Camden Avenue, Salisbury, Md.
 Gore, Robert J., Deers Head Hospital, Salisbury, Md.
 Gramse, Fred R., 402 S. Division St., Salisbury, Md.
 Gray, Wm. David, 334 Camden Avenue, Salisbury, Md.

Hanson, I. Rivers, 204 N. Division Street, Salisbury, Md.
 Hearn, Carrie I., 113 W. Church Street, Salisbury, Md.
 Howard, Wm. Lawrence, 222 N. Division Street, Salisbury, Md.
 Hurdle, Seth H., Wicomico County Health Dept., Watson Memorial Building, Salisbury, Md.
 Insley, Philip A., E. Main Street, Salisbury, Md.
 Kuhlman, Harry S., Sharptown, Md.
 Lambdin, Morris A., 707 Camden Avenue, Salisbury, Md.
 Lawrence, Margaret W., R.F.D. #1, Salisbury, Md.
 Lawry, Lee L., Jr., Fruitland, Md.
 Lewis, Frank R., Willards, Md.
 Long, Wm. B., 226 N. Division Street, Salisbury, Md.
 McCallum, James A., Deer's Head Hospital, Salisbury, Md.
 McCullough, Kendrick, Peninsula General Hospital, Salisbury, Md.
 Mann, Hunter R., Professional Bldg., Salisbury, Md.
 Mann, Hunter R., Jr., Professional Bldg., Salisbury, Md.
 Mattax, Alberta Macarney, 407 Camden Avenue, Salisbury, Md.
 Mattax, Harry McCoy, 407 Camden Avenue, Salisbury, Md.
 Mitchell, Andrew C., 228 N. Division Street, Salisbury, Md.
 Morgan, W. C., Professional Bldg., Salisbury, Md.
 Newman, A. Carleton, 704 Camden Avenue, Salisbury, Md.
 Nock, R. M., Professional Bldg., Salisbury, Md.
 Poole, Frank, 704 Camden Avenue, Salisbury, Md.
 Rademaker, Lee Albert, 224 N. Division Street, Salisbury, Md.
 Saunders, Richard H., Nanticoke, Md.
 Semby, G. Herbert, 400 E. Church Street, Salisbury, Md.
 Smith, W. Stedman, 224 N. Division Street, Salisbury, Md.
 Smith, William, 222 N. Division Street, Salisbury, Md.
 Sohler, L. V., 303 East Street, Delmar, Md.
 Tamasi, Joseph J., Peninsula General Hospital, Salisbury, Md.

Wanner, Jesse R., Jr., 506 N. Division Street, Salisbury, Md.
 Williams, Jack K., Peninsula General Hospital, Salisbury, Md.
 Waters, Zack J., 410 S. Division St., Salisbury, Md.

Worchester County

Cohen, Paul, Snow Hill, Md.
 Dickerson, John D., Stockton, Md.
 LaMar, Robert C., Snow Hill, Md.
 Llewelyn, Helen Ensor, 603 Market Street, Pocomoke City, Md.
 Llewelyn, Louis Grandeur, 6th Street, Pocomoke City, Md.
 O'Donnell, T. F., Berlin, Md.
 Robbins, Herman A., 5 Bay Street, Berlin, Md.
 Sartorius, Norman E., Pocomoke City, Md.
 Sartorius, Norman E., Jr., Pocomoke City, Md.
 Schott, Clifford E., 310 N. Main Street, Berlin, Md.
 Thomas, Nathaniel R., 703 Baltimore Avenue, Ocean City, Md.
 Townsend, Francis J., Jr., Somerset Street, Ocean City, Md.
 Trader, Charles W., 302 Market Street, Pocomoke City, Md.
 Waesche, F. Seton, Asso., Snow Hill, Md.

Non-Resident Members

Allison, Wilfred J., 2514 Welborn Dallas, Tex.
 Archibald, Reginald M., Hospital of the Rockefeller Inst. for Medical Research, 66th Street and York Avenue, New York 21, N. Y.
 Austrian, Robert, Kings County Hospital, Brooklyn 3, N. Y.
 Bacon, Robert B., "The Oaks," Box 210, Hudson, Fla.
 Bardfeld, Benjamin, 1080 E. Landis Avenue, Vineland, N. J.

Barrow, Bernard, Blackstone, Va.
 Bowditch, Sarah H., Office of the Surgeon General, Washington 25, D. C.
 Brimmer, Karl W., 4001 N. Fifth Street, Arlington, Va.
 Bronos, George J., 310 Maple Street, Holyoke, Mass.
 Bryan, Elizabeth Lynn, 146 Columbia Heights, Brooklyn 2, N. Y.
 Byerly, William L., Jr., 905 Carolina Avenue, Hartsville, S. C.
 Colsky, Jacob, Maimanides Hospital 4802 10th Avenue, Brooklyn, N. Y.
 Cook, Sarah, 2609 Lee Blvd., Apt. 202, Arlington 4, Va.
 Copeland, Murray M., Westchester Apts. 221-B, 400 Cathedral Avenue, N.W. Washington 16, D. C.
 *Corbett, William W., Council on Medical Education and Hospitals, American Medical Association, 535 N. Dearborn Street, Chicago 10, Ill.
 Council, Wilfred A. H., Jr., 4 University Court, Charlottesville, Va.
 Duvall, Robert Caywood, Jr., 636 Rhode Island Avenue, Norfolk 8, Va.
 *Furness, Josephine W., 35-37 Matawan Street, Palmerton, North, New Zealand.
 Geiling, E. M. K., University of Chicago, Chicago, Ill.
 Gerwig, Walter H., Jr., 1805 Kenyon Street, NW, Washington, D. C.
 Graham, Robert Lee, Topeka State Hospital, Topeka Kan.
 Grant, H. C., V. A. Regional Office, 2320 La Branch Street, Houston, Tex.
 Greif, Roger Louis, Hospital for the Rockefeller Institute for Medical Research, 66th St. and York Avenue, New York 21, N. Y.
 Hazard, Elmer C., 75 Washington Street, Long Branch, N. J.
 * Holmes, James B., Route 4, Bedford County, Lynchburg, Va.
 Hope, Daniel, Jr., Rockwell & Westchester Aves., Catonsville 28, Md.
 Keeney, Edmund L., 239 Laurel Street at 3rd Avenue, San Diego 1, Cal.
 Ketzky, Joseph William, 4544 Alton Road, Miami Beach 40, Fla.
 Lamkin, Edward E., Blackstone Apartments, Baltimore 18, Md.
 Lerman, Philip H., 1 Hearth Lane, Westbury, N. Y.
 Lipin, Raymond J., V. A. Hospital, 300 E. Roosevelt Road, Little Rock, Ark.
 Lyford, John, III, Henry Ford Hospital, Detroit 2, Mich.
 Miller, Robert T., Mountain Lake, Lake Wales, Fla.
 Mitchell, Henry S., V. A. Center, Martinsburg, W. Va.
 Mitchell, William A., 110 S. Raquet Street, Lofkin, Tex.
 Molofsky, Leonard Carl, Kaiser Foundation Hospital, Broadway and McArthur Blvd., Oakland 11, Cal.
 Peter, Philip A., 1916 Logan Avenue, Cheyenne, Wyo.
 Ravitch, Mark M., Mt. Sinai Hospital, New York, N. Y.
 Ritchings, Edward Peyton, Victor Cullen Hospital, State Sanitorium, Md.
 Schenthal, Joseph E., 1328 Aline Street, New Orleans 15, La.
 Shelley, Harry, 3725 Estes Avenue, Nashville, Tenn.
 Steinberg, Stanley H., 4214-16th Street, N.W., Washington, D. C.
 Thompson, Charles Baker, Lifwyn Foundation, Westport, Conn.
 Virgilio, Frank D., USNAS Medical Dept., Patuxent River, Md.
 Warren, Thomas N., U. S. Quarantine Station, Rosebank, Staten Island 5, N. Y.

* Deceased.

DIRECTORY—TRANSACTIONS

The preceding pages 261–291, which list the membership of the Medical and
Chirurgical Faculty from March 31, 1952 through March 31, 1953, are a part
of the Transactions for 1953.
